# WEST VIRGINIA
# SECRETARY OF STATE
## BETTY IRELAND
# ADMINISTRATIVE LAW DIVISION

Form #1

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OFFICE WEST VIRGINIA SECRETARY OF STATE

## NOTICE OF A PUBLIC HEARING ON A PROPOSED RULE

AGENCY: WV Dept. of Environmental Protection, Division of Air Quality TITLE NUMBER: 45

RULE TYPE: Legislative CITE AUTHORITY: WV Code §22-5-4

AMENDMENT TO AN EXISTING RULE: YES X NO ____

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 18

TITLE OF RULE BEING AMENDED: ~~To Prevent and Control Emissions From Commercial and Industrial Solid Waste Incineration Units~~ Control of Air Pollution From Combustion of Solid Waste

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ____

TITLE OF RULE BEING PROPOSED: ____

DATE OF PUBLIC HEARING: Monday, July 10, 2006 TIME: 6:00 p.m.

LOCATION OF PUBLIC HEARING: WV Department of Environmental Protection
Dolly Sods Conference Room (Room 1125)
601 57th Street, S.E.
Charleston, WV 25304

COMMENTS LIMITED TO: ORAL ____, WRITTEN ____, BOTH X

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS:

John A. Benedict, Director
Division of Air Quality
WV Dept. of Environmental Protection
601 57th Street, S. E.
Charleston, WV 25304

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Stephanie P. Timmermeyer

Authorized Signature

# DEPARTMENT OF ENVIRONMENTAL PROTECTION
# DIVISION OF AIR QUALITY

## BRIEFING DOCUMENT

**Rule Title:** 45CSR18 - "Control of Air Pollution From Combustion of Solid Waste"

**A. AUTHORITY:** W.Va. Code §22-5-4

**B. SUMMARY OF RULE:**

This rule establishes standards of performance and emission guidelines for large municipal waste combustors, small municipal waste combustion units, hospital/ medical/ infectious waste incinerators, commercial and industrial solid waste incineration units, and other solid waste incineration units pursuant to Sections 111 and 129 of the federal Clean Air Act (CAA). This rule codifies general procedures and criteria to implement certain standards of performance for new stationary sources and emission guidelines for existing units promulgated by the U.S. Environmental Protection Agency (U.S. EPA) as set forth in 40 CFR Part 60. It is the intent of the Secretary to adopt these standards by reference.

The Division of Air Quality (DAQ) is streamlining the regulatory structure by consolidating the incorporation of all 40 CFR Part 60 requirements for Section 129 combustion sources into one rule, 45CSR18. Consequently, this proposed rule will repeal and replace 45CSR24 - "To Prevent and Control Emissions from Hospital/ Medical/ Infectious Waste Incinerators" which was filed April 18, 2000 and became effective May 1, 2000. 45CSR18 also incorporates by reference recently promulgated regulations for new source Other Solid Waste Incineration Units.

This revised rule incorporates by reference the following new or revised new source performance standards or emission guidelines promulgated as of June 1, 2006: Standards of Performance or Emission Guidelines for Other Solid Waste Incineration Units, Commercial and Industrial Solid Waste Incineration Units, Large Municipal Waste Combustors, Small Municipal Waste Combustors, Hospital/ Medical/ Infectious Waste Incinerators, Municipal Waste Combustors.

**C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:**

The U.S. EPA approved West Virginia's request for delegation of New Source Performance Standards pursuant to Section 111 of the CAA on January 8, 2002. Emission and operating requirements under Sections 111(d) and 129 of the CAA must be incorporated into a State 111(d)/129 Plan, and are federally enforceable upon approval by U.S. EPA. Upon

authorization and promulgation of revisions to 45CSR18, the DAQ will submit the final rules to the U.S. EPA for approval as a part of West Virginia's Section 111(d)/129 Plan and program delegation of the federal New Source Performance Standards. Promulgation of this rule by the Legislature is necessary for the State to fulfill its responsibilities under the CAA.

The Division of Air Quality intends to streamline and consolidate West Virginia's waste combustion regulatory structure by revising legislative rules 45CSR6 and 45CSR18 to follow federal combustion source regulatory structure. It is the intent of the Secretary that 45CSR6 cover activities involving incineration of refuse which is not subject to, or are exempted from regulation under various federal counterpart regulations for specific combustion source categories. It is also the intent of the Secretary that 45CSR18 cover combustion sources identified in Section 129 of the CAA, with incorporation by reference of federal counterpart language promulgated under 40 CFR Part 60. The Section 129 sources subject to 45CSR18 shall be exempt from SIP rule 45CSR6.

As a part of the streamlining effort, the incorporation of Hospital/ Medical/ Infectious Waste Incinerator requirements under 45CSR24 - "To Prevent and Control Emissions from Hospital/ Medical/ Infectious Waste Incinerators" has been moved to 45CSR18, and 45CSR24 will be repealed and replaced by 45CSR18.

45CSR18 has a federally-based exemption for pathological waste incinerators burning at least 90% pathological waste, chemotherapeutic waste, or low-level radioactive waste. Such pathological waste incinerators shall be subject to 45CSR6. Other revisions to 45CSR18 include a revised title and scope, prohibition of statutory air pollution, updated incorporation by reference updates, revised definitions, a new exemption section, and general language clarification and correction.

## D. FEDERAL COUNTERPART REGULATIONS - INCORPORATION BY REFERENCE/DETERMINATION OF STRINGENCY:

A federal counterpart to this proposed rule exists. In accordance with the Secretary's recommendation, and with limited exception, the Division of Air Quality proposes that the rule incorporate by reference the federal counterparts.

Because the proposed rule incorporates by reference the federal counterpart, no determination of stringency is required.

## E. CONSTITUTIONAL TAKINGS DETERMINATION:

In accordance with §22-1A-1 and 3(c,) the Secretary has determined that this rule will not result in taking of private property within the meaning of the Constitutions of West Virginia and the United States of America.

## F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

At its May 31, 2006 meeting, the Environmental Protection Advisory Council reviewed and discussed this rule. Their comments are contained in the attached minutes.

West Virginia Department of Environmental Protection

# ADVISORY COUNCIL MEETING MINUTES

Wednesday - May 31, 2006
1:00 p.m. – 3:00 p.m.
601 57th Street, SE, Charleston, WV
West Virginia Room – 3rd Floor

**ATTENDEES:**

**Advisory Council Members:**
Larry Harris
Jackie Hallinan
Rick Roberts
Bill Raney (via conference call)
Karen Price

**DEP:**
Stephanie R. Timmermeyer, Cabinet Secretary
Randy Huffman, Deputy Cabinet Secretary/Director –Division of Mining & Reclamation
Heather A. Connolly, General Counsel
Karen G. Watson, Assistant General Counsel
Ken Ellison, Director - Division of Land Restoration
Lisa McClung, Director – Division of Water and Waste Management
John Benedict, Director – Division of Air Quality
Mike Zeto, WVDEP
Charlie Sturey, WVDEP
Lalena Price, Acting Chief Communication Officer – WVDEP – Public Information Office
James Martin, Chief, WVDEP - Office of Oil & Gas
Jim Mason – WVDEP
Bill Brannon – WVDEP
Carroll Cather – WVDEP
Terrie Sangid – WVDEP
Scott Mandirola – WVDEP
Cliff Whyte – WVDEP
John Morgan – WVDEP
Gary Rogers – WVDEP
Mike Dorsey – WVDEP
Patrick Campbell – WVDEP
Ken Politan – WVDEP
Pam Nixon – WVDEP

**VISITORS:**
Don Garvin – WVEC
Allan S. Tweddle – WVEC
Adam Webster – WVRC
Tim Mallan – Appalachian Power
Steve Keen – Bright Enterprises
Charlie Burd – IOGA – WV
Tom Boggs – WV Chamber

Stephanie R. Timmermeyer, Cabinet Secretary - West Virginia Department of Environmental Protection called the meeting to order at 1:00 p.m. Secretary Timmermeyer apologized for short time period with some of the rules getting out to Council.

Proposed rules for the 2007 legislative session are as follows:

**60CSR5 – Antidegradation Implementation Procedures**

**SUMMARY**

Antidegradation is a requirement of the federal Clean Water Act intended to preserve the existing quality of the State's waters and to prevent and/or minimize future degradation. The rule was first adopted in 2001 and establishes four levels, or tiers, of protection of State waters, Tiers 1,2,2.5 and 3. Each tier provides a graduated level of protection used during the NPDES permit issuance process.

**COMMENTS**

Secretary Timmermeyer - Procedural History – 444 Streams to 303 - 3.7% of total WV stream miles.

5.6.d. Are these absolute values (§5.6.d 1-4 of rule)?

*Yes*

Will there be another comment period after filing with Secretary of State's Office?

*Yes*

Is this the final list?

*Yes*

So §6.2 is gone?

*Yes*

Legislature has to approve the Tier 2.5 list according to the law passed last session.

How do we appeal a stream's inclusion on Tier 2.5 list?

*9.6 – Not appealable to the board, delisting a stream would require a change by the legislature through a rule change.*

Since rulemaking authority has been taken from EQB how do you appeal?

*This is like any other rule, EQB has no appellate jurisdiction.*

When does it go into effect?

*If the Legislature passes the list, we send it to EPA for approval, then it would be effective for reissuance, modifications, and 1st time issuances.*

**47CSR2 – Requirements Governing Water Quality Standards**

**SUMMARY**

This rule establishes requirements governing surface water quality standards for the waters of the State and establishes standards of purity and quality consistent with public health and the enjoyment thereof, the protection of animal, aquatic and plant life and the expansion of employment opportunities, agricultural expansion and a foundation for healthy industrial development.

**COMMENTS**

Secretary Timmermeyer – Overview of nutrients criteria, EPA approved old (46CSR1) Aluminum Standard. Also includes updated list of trout waters.

How were trout streams added?

*We relied on DNR's data to come up with the list.*

Was it a scientific study or did it include streams where trout are stocked?

*The stream must be able to allow trout to survive over time. This does sometimes include stocked streams.*

Has problem with some streams listed, believes they are not reproducing streams, simply stocked, wants to see method of gathering data for list

*The list is not final, DEP will continue to regulate facilities on such streams. DEP will add and subtract streams as data becomes available.*

*6 streams are being taken off in this rule because they cannot support trout over time.*

How recent are DNR's survey's?

*The surveys range from 1975 to present.*

*We have to maintain waters that "previously sustained trout."*

Where is Watershed at in definition?

*When permits are issued they are looked at on a case by case basis to assess impact on downstream waters within a watershed (downstream usage protection.)*

There is no *definition of "water body" in State Code, only "Waters."*

**33CSR9 - Standards for Beneficial Use of Filtrate From Water Treatment Plants**

**SUMMARY**

This legislative rule establishes a mechanism and requirements for the certification, permitting, siting, bonding, and use of water treatment plant sludge from water treatment plants that has beneficial properties. This rule applies to the beneficial use of water treatment plant sludge and to any person who seeks approval from the Secretary to beneficially use such sludge within the state. This rule is intended to enhance the resource recovery and recycling goals of article fifteen of chapter twenty-two of the West Virginia Code and to encourage the beneficial use of water treatment plant filtrate. Section 22-15-23 of the West Virginia Code and this rule, and not the provisions of W. Va. Code § 22-15-10 or 33 CSR 1, shall govern the beneficial use of water treatment plant sludge. This rule does not apply to sewage sludge, products derived from sewage sludge, sludges regulated under 33 CSR 8, or materials regulated as hazardous waste under W. Va. Code §§22-18-1, et seq.

**COMMENTS**

Can we give an example?

*Such filtrate could have been considered Hazardous Waste in the past, this rule allows for certain applications.*

**47CSR5A – Rules for Individual State Certification of Activities requiring a Federal Permit**

**SUMMARY**

The proposed amendments to this rule are being made to adopt into rule requirements that have been applied through past practices for coal related activities requiring mitigation and issuance of a 401 State Certification of a 404 Permit. Ratios for monetary compensation for temporary impacts are detailed. Monetary compensation for permanent impacts to wetlands

from coal related activities are made the same as non-coal related. Additional economic and stream measurement information is being requested to be added to the 401 application.

**COMMENT**

Does this apply to any other industry?

*No, it is only coal related.*

Wants to know if other industry has similar regs?

Seems contrary to what we submit to Army Corp. We want consistency across all forums. Is this different?

*No, it is information contained in other forms.*

4.2.f.a WV. Jobs creation

*Coal companies are already submitting this information to Coal Development. We use this information so we need to see it too.*

Is it on a timeframe? – Can coal meet with DEP?

Secretary Timmermeyer suggested we have another Advisory Council Meeting to give the council additional time to review certain rules.

Bill Raney agrees with Secretary Timmermeyer for the need for another meeting to address some of the rules.

The next Advisory Council Meeting will be scheduled before June 20, 2006.

**58CSR5 – Recycling Assistance Grant Program**

**SUMMARY**

Updates and streamlines recycling grant requirements. Establishes rule definitions. Consolidates the type of grants available. Simplifies the grant eligibility criteria. Clarifies uses of grant funding. Clarifies and restructures general conditions and requirements for an applicant and then for a grant recipient. Increases the maximum grant funding levels. Clairfies grant proposal content and submission requirements. Establishes agency review criteria and revises Recycling Assistance Fund Grant Review Committee.

**COMMENT**

Someone worked really hard on putting this together - Really thinks they did a great job.

*The changes are a result of suggestions from grant recipients and the recycling community in general.*

**45CSR6 – Control of Air Pollution from Combustion of Refuse**

**SUMMARY**

This rule establishes emission standards for particulate matter and requirements for activities involving incineration of refuse which are not subject to, or are exempted from regulation under various federal counterpart regulations for specific combustion source categories. This rule also prohibits (with limited exception) open burning and sets forth the registration, permitting, reporting, testing, emergency, natural disaster and exemption provisions for activities involving the combustion of refuse and land clearing debris.

**COMMENT**

Rule is just reorganizing and streamlining.

Wholesale look at air rules. Four decades old rule. Needed to take a look at its federal counterparts. We separated them (fed) into Rule 18. Rule 6 covers state regs. Streamlined. Did not change any limits. Left open burning and DOH jobs the same.

Both rules compared old "prevent and control" new "control" why drop the term "prevent" from the rule?

*We don't prevent air pollution we control it. There is no other specific reason, DEP just cleaned up the title.*

*The federal government doesn't use the term "prevent" and we are trying to mirror their rules for consistency.*

Does it involve timbering operations?

*No.*

**60CSR3 – Voluntary Remediation and Redevelopment Rule**

**SUMMARY**

The Voluntary Remediation Program proposed rule amendments focus on two primary areas: 1. Incorporating the Uniform Environmental Covenant Act provisions, and 2. Updating the DeMinimis Standard to incorporate ;recent changes in toxicological profiles posted by EPA for several constituents.

**COMMENT**

We're adopting Uniform Environmental Covenant Act. We'll have to adopt as they change. Same for DeMinimus Standards (developed by consultant in excel). We've updated the tox profiles.

No questions from Council.

**45CSR25 – Control of Air Pollution from Hazardous Waste Treatment Storage and Disposal Facilities.**

**SUMMARY**

This rule establishes and adopts emission standards for the treatment, storage and disposal of hazardous waste promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to the Resource Conservation and Recovery Act, as amended (RCRA). This rule codifies general procedures and criteria to implement emission standards set forth in 40 CFR Parts 260, 261, 262, 264, 265, 266, 270 and 279, as listed in Table 25-A of the rule. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these standards. Any person who constructs, reconstructs, modifies or operates any hazardous waste treatment, storage, or disposal facility must comply with the West Virginia Hazardous Waste Management System, the codified federal emission standards, and this rule.

45CSR25 establishes a program of regulation over the treatment, storage, and disposal of hazardous wastes in order to achieve and maintain such levels of air quality as will protect the public health and safety and the environment from the effects of improper, inadequate, or unsound treatment, storage, or disposal of hazardous wastes.

This revised rule incorporates by reference the following provisions of 40 CFR Parts 260, 261, 264, 265, 266 and 270 promulgated as of June 1, 2006: National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II), Resource Conservation and Recovery Act Burden Reduction Initiative, and Waste Management System; Testing and Monitoring Activities, Methods Innovation Rule and SW-846 Final Update IIIB.

**COMMENT**

Revisions to this rule are necessary to maintain consistency with current federal regulations.

Only federal changes this year except for one definition on pathological incinerators.

No further questions.

**199CSR1 – Surface Mining Blasting Rule**

**SUMMARY**

These changes are proposed for clarification of definitions, jurisdiction for underground shaft and slope development, and training/educational requirements for pre-blast surveyors and certified blasters. None of which should have any fixcal impact on the state or public above those currently experiencing. Some additional training will be required by those doing pre-blast surveys, but that training will be offered for free by Explosives and Blasting.

**COMMENT**

Randy Huffman hit on highlight changes and cleanup for this rule:

3.2.c. 1000 ft requirement for seismograph
3.4. defines where DEP gives up regulatory authority as 40ft.
3.9 Pre blast surveyors training requirements.

Is this new or modified requirement?

> *Modified – Now requiring additional criteria. DEP/OEB is the approving authority. We offer procedural training only at DEP 4.1.b. Case by case certification for qualifying experience for initial certification.*

Would that include the convicted felon requirements?

> *The convicted felon exclusion remains. Felons can't get a fire marshal's license, or a license from ATF.*

Any provision for appeals on the convicted felon prohibition?

> *Not at this tme.*

4.5.d – Show cause why you should be allowed in West Virginia when suspended or revoked in other states.
4.9. – Allows blasting inspector to issue suspension order on site if unsafe conditions exist. 24 hour appeal process. Concerned about air blast and fly rock incidents.

Grammatical errors must be changed before we go out to public notice.

Concerns: New definition for "Other structures" and "habitable dwelling"
Shaft and slope (40 ft)

> *Other structures or "Protective structure" can house people – habitable dwelling one that can house people (snowbird example)- "shaft and slope" DEP worked with miner's health and safety to develop the distance criteria.*

We're (WVCA) probably fine with them.

Does OSM require it?

*No. Geology and blast record 3.5 Safety concerns pre-blast surveyors, they don't have to be geologists, but they do need to know what they are blasting.*

**HOLD OVER FOR NEXT MEETING.**

**38CSR2 – Surface Mining Reclamation Rule**

**SUMMARY**

38- 3.2.g. Notice of Technical Completeness is new language and is to provide the public an opportunity to review the application once technical review is completed. §38- 5.4.e.1 is removing language that is contrary to returning the natural drainway to its original pattern, profile, and dimensions once drainage control structure is removed. Changes to §38-2-6 removals duplication of rules for Blasting and after this change, all the requirements for blasting will be contained in Surface Mining Blasting Rule, Title 199 Series 1. Changes in §38-14.15.c.2, 14.15.d.1and 14.15.d.3 are clarifying contemporaneous reclamation rules on excess spoil disposal. The changes in §38- 5.6 and 14.15 removes phase-in compliance schedules and the schedule in 14.15 has long past and the one in 5.6 is due to expire on June 19, 2006. §38-2-25 Coal Slurry Lines is new language and the term slurry as used in this subsection means any mixture of water and solids that are pumped to a disposal area. The purpose of this change is to minimize the potential and the impacts of slurry line spills by providing for secondary containment, monitoring etc.

**COMMENT**

Creates standards and requirements (§38-2-25) is a new section.

Public review period 3.2.g. – currently the public has no opportunity to comment on a completed application so this rule adds a 15 day comment period in certain circumstances.

Why delete the term "databases" specifically

*Some of those databases don't exist. We have our own database now.*

Has the current notification timeframe changed?

*No, it is the same as using the existing spill line.*

What about mining related spills?

*Inspectors call spill line within 24 hour period. Companies should call immediately upon discovering a spill.*

Is there anyway to sample water for slurry spills?

*Currently DEP Inspectors take stream water samples and that data is on file.*

Is there anything dangerous in the slurry to the public?

*Not usually. We can get you data on existing samples.*

Dialysis system are bothered by trace stuff in the water.

*Coal fines are usually what kill fish, not the trace chemicals.*

**HOLD OVER FOR NEXT AC MEETING**

**47CSR30 – WV/NPDES RULES FOR COAL MINING FACILITIES**

**SUMMARY**

The proposed amendments to this rule are being made to allow general clean-up of sections referencing outdated names of agencies and references to the EQB governing rule making. This rule addresses the Secretary as being the person as head of all actions. References to the "Director" are changed to "Secretary" to eliminate the need to distinguish between the Director of Mining and Reclamation and the Director of Water and Waste Management when issuing a coal related WV/NPDES permit. This rule adds provision for storm-water coverage for certain minimal activities without the requirement for modification through application to the permit. This rule also provides for an advanced approval of transfer of a WV/NPDES Permit to coincide with the advanced approval of the corresponding Article 3 Permit.

**COMMENT**

Eliminates need to do a NPDES modification permit in certain instances when adding area to an existing permitted area. Reduce paperwork and manpower.

Secretary can override rule when circumstances dictate. Also, there is a provision for advanced approval of a transfer permit in certain circumstances. Consistent with SMCRA.

Why would a permit area be expanded if not to extract minerals?

*Haul roads, storage, etc.*

Does this do away with any existing public comment period?

*No. These small changes wouldn't require a hearing.*

**HOLD FOR NEXT MEETING.**

**35CSR3 – Coalbed Methane Wells Rule –**

**HOLD FOR NEXT MEETING**

**33CSR20 – Hazardous Waste Management**

**HOLD FOR NEXT MEETING**

**45CSR8 – Ambient Air Quality Standards**

**SUMMARY**

The purpose of this rule is to establish ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, ozone, nitrogen dioxide and lead, equivalent to those national primary and secondary National Ambient Air Quality Standards (NAAQS) established by the U.S. EPA.

National primary ambient air quality standards define levels of air quality which the Administrator of the U.S. EPA judges are necessary, with an adequate margin of safety, to protect the public health. National secondary ambient air quality standards define levels of air quality which the Administrator of the U.S. EPA judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Such standards are subject to revision, and additional primary and secondary standards may be promulgated as the Administrator of the U.S. EPA deems necessary to protect the public health and welfare.

The Division of Air Quality (DAQ) is streamlining the regulatory structure by consolidating all of the NAAQS into one rule. Consequently, this rule will repeal and replace 45CSR9 - "Ambient Air Quality Standards for Carbon Monoxide and Ozone" which was filed on April 16, 2002 and became effective on July 1, 2002, and 45CSR12 - "Ambient Air Quality Standard for Nitrogen Dioxide" which was filed May 19, 2000, and became effective June 1, 2000.

**COMMENT**

This puts all NAAQS in one rule, acts to consolidate and streamline the rule.

Why do away with 2.2?

> *It's now in 3.1 and adopts federal standards.*

Particulates are in this rule. Dr. Popper's (WVU) research shows that particulates damage kid's lungs developmentally and these standards are based on adults. Asthma on the increase and this might exacerbate our kids health.

> The federal EPA is *currently reviewing fine particulate matter and we will change our standards accordingly based on their rule changes.*

**45CSR16 – Standards of Performance for New Stationary Sources**

**SUMMARY**

This rule establishes and adopts national standards of performance for new stationary sources and other regulatory requirements promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to section 111(b) of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement standards of performance for new stationary sources set forth in 40 CFR Part 60. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to such standards. Any person who constructs, modifies, reconstructs or operates an affected facility after the effective date of any NSPS under 40 CFR Part 60 must comply with the applicable NSPS and this rule.

This revised rule incorporates by reference the following new or revised NSPS standards promulgated as of June 1, 2006: Standards of Performance for: New and Existing Stationary Sources - Electric Utility Steam Generating Units; Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978, Industrial- Commercial-Institutional Steam Generating Units, Small Industrial- Commercial- Institutional Steam Generating Units; Stationary Gas Turbines.

**COMMENT**

Standard Update of fed requirements.

No Questions.

**45CSR34 – Emission Standards for Hazardous Air Pollutants**

**SUMMARY**

This rule establishes and adopts national emission standards for hazardous air pollutants (NESHAP) and other regulatory requirements promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to section 112 of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit, or have the potential to emit, one or more of the hazardous air pollutants set forth in section 112(b) of the CAA, or one or more of the eight substances listed as hazardous air pollutants in 40 CFR §61.01(a). The rule incorporates by reference the NESHAP standards of 40 CFR Parts 61, 63 and 40 CFR Part 65 (Consolidated Federal Air Rule), to the extent referenced in 40 CFR Parts 61 and 63, promulgated as of June 1, 2006. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these standards and contained in 40 CFR Parts 61 and 63. Any person who constructs, reconstructs, modifies or operates any source subject to the provisions of 40 CFR Parts 61 or 63 must comply with the applicable NESHAPS and this rule.

This rule will repeal and replace 45CSR15 "Emission Standards for Hazardous Air Pollutants Pursuant to 40 CFR Part 61" filed April 28, 2006 and effective June 1, 2006, as 45CSR34 will now include all federal NESHAPS under 40 CFR Parts 61 and 63.

The revised rule incorporates by reference the following new or revised NESHAP standards promulgated as of June 1, 2006: Miscellaneous Organic Chemical Manufacturing, Waste Management System; Testing and Monitoring Activities, Methods Innovation Rule and SW-846 Final Update IIIB, Cellulose Products Manufacturing, Primary Aluminum Reduction Plants, Cross-Media Electronic Reporting, Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II), Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j), Primary Copper Smelting, Coke Ovens: Pushing, Quenching, and Battery Stacks, Cellulose Products Manufacturing, Miscellaneous Organic Chemical Manufacturing, Secondary Aluminum Production, Brick and Structural Clay Products Manufacturing, Hazardous Waste Combustors, Exemption of Certain Area Sources From Title V Operating Permit Programs, List of Hazardous Air Pollutants, Petition Process, Lesser Quantity Designations, Source Category List, Miscellaneous Coating Manufacturing, Industrial, Commercial, and Institutional Boilers and Process Heaters: Reconsideration, Surface Coating of Metal Cans, Refractory Products Manufacturing, Plywood and Composite Wood Products; List of Hazardous Air Pollutants, Lesser Quantity Designations, Source Category List, Miscellaneous Organic Chemical Manufacturing, Hazardous Waste Combustors, Hydrochloric Acid Production, Industrial Process Cooling Towers, Magnetic Tape Manufacturing Operations, Ethylene Oxide Emissions Standards for Sterilization Facilities, Refractory Products Manufacturing and General Provisions.

**COMMENT**

Standard update of fed requirements combining 45CSR___ and 45CSR16 into this rule. Will replace Rule 15.

No Questions.

**45CSR39 – Control of Annual Nitorgen Oxides Emissions**

**SUMMARY**

This rule establishes general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR $NO_X$ Annual Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AA through II, and 40 CFR §51.123 for state implementation plans as a means of mitigating interstate transport of fine particulates and nitrogen oxides ($NO_X$).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the $NO_X$ SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of $NO_X$ reduce annual emissions through the constraint of set budgets. U.S. EPA is specifying that annual $NO_X$ emission reductions be implemented in two phases. The first phase of $NO_X$ reductions starts in 2009; the second phase starts in 2015, and continues thereafter. The $NO_X$ emission reduction requirements are based on controls that are

known to be highly cost effective for electric generating units. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell $NO_X$ emission allowances from or to other program participants. Reducing upwind $NO_X$ emissions will assist downwind $PM_{2.5}$ and 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).

45CSR39 applies to large fossil fuel-fired electric generating units that have greater than 25 $MW_e$ generating capacity. The CAIR $NO_X$ Ozone Season Trading Program requirements are set forth in 45CSR40.

**COMMENT**

Standard update of Fed requirements.
CAIR rules
Picking up EPA rules

Are all the cross-outs just picking up federal standards?

*Yes.*

No other questions.

**45CSR40 – Control of Ozone Season Nitrogen Oxides Emissions**

**SUMMARY**

This rule establishes the general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR $NO_X$ Ozone Season Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AAAA through IIII, and 40 CFR §51.123 for state implementation plans as a means of mitigating interstate transport of ozone and nitrogen oxides ($NO_X$).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the $NO_X$ SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of $NO_X$ reduce ozone season emissions through the constraint of set budgets. U.S. EPA is specifying that ozone season $NO_X$ emission reductions be implemented in two phases. The first phase of ozone season $NO_X$ reductions starts in 2009; the second phase starts in 2015, and continues thereafter. The $NO_X$ emission reduction requirements are based on controls that are known to be highly cost effective for electric generating units and large industrial boilers. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell $NO_X$ emission allowances from or to other program participants. Reducing upwind ozone season $NO_X$ emissions will assist downwind 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).

Because CAIR subsumes the ozone season $NO_X$ SIP Call trading program, existing $NO_X$ SIP Call rules 45CSR1 and 45CSR26 and their ozone season $NO_X$ reduction provisions must be "sunsetted" by January 1, 2009. Therefore, 45CSR40 contains a repeal clause which

effectively "sunsets" these rules, meeting the approvability requirement for implementing CAIR.

45CSR40 applies to large fossil fuel-fired electric generating units that have greater than 25 $MW_e$ generating capacity and large fossil fuel-fired industrial boilers with a heat input greater than 250 mmBtu/hr. This rule also applies to affected cement kilns and internal combustion engines, by retaining the $NO_X$ SIP Call ozone season $NO_X$ emission reduction requirements for these sources from 45CSR1. These existing requirements do not provide for inclusion in any cap and trade program for cement kilns and internal combustion engines. The CAIR $NO_X$ Annual Trading Program requirements are set forth in 45CSR39.

**COMMENT**

These changes have they resulted in any change in stringency?

*No we are simply streamlining the CAIR rules*

We haven't lost any ground?

*No.*

**45CSR1 – Control of Annual Sulfur Dioxide Emissions**

**SUMMARY**

This rule establishes general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the state CAIR $SO_2$ Trading Program pursuant to the federal Clean Air Interstate Rule (CAIR) under Section 110 of the Clean Air Act (CAA), 40 CFR Part 96, Subparts AAA through III, and 40 CFR §51.124 for state implementation plans as a means of mitigating interstate transport of fine particulates and sulfur dioxide ($SO_2$).

This rule partially fulfills the State's obligations in response to the United States Environmental Protection Agency's (U.S. EPA) final rule, *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the $NO_X$ SIP Call* (12 May 2005, at FR 25162). The federal rule requires that large emitters of $SO_2$ reduce annual emissions based upon the implementation of retirement ratios for $SO_2$ allowances allocated under the Acid Rain Program. U.S. EPA is specifying that annual $SO_2$ emission reductions be implemented in two phases. The first phase of $SO_2$ reductions starts in 2010 and requires retiring $SO_2$ allowances at a 2:1 ratio; the second phase starts in 2015 and requires retiring $SO_2$ allowances at a 2.86:1 ratio, and continues thereafter. The $SO_2$ emissions reductions requirements are based on

controls that are known to be highly cost effective for electric generating units. Flexibility is built in through market-based "cap and trade" provisions which allow sources to buy or sell $SO_2$ emission allowances from or to other program participants. Reducing upwind $SO_2$ emissions will assist downwind $PM_{2.5}$ and 8-hour ozone nonattainment areas in achieving the National Ambient Air Quality Standards (NAAQS).
45CSR41 applies to large fossil fuel-fired electric generating units that have greater than 25 $MW_e$ generating capacity.

**COMMENT**

No questions.

**OTHER BUSINESS**

Appreciation to Trish White for her work on these rules.

Larry Harris wanted to know about Pocohantas Water Treatment Plant Status? Randy Huffman located Cliff Whyte from DWWM to give him the information.

Trish White will e-mail everyone with next meeting date....

Larry Harris moves we adjourn – Bill Raney seconds.

APPENDIX B

# *FISCAL NOTE FOR PROPOSED RULES*

Rule Title: 45CSR18 - "Control of Air Pollution From Combustion of Solid Waste"

Type of Rule: ___X__ Legislative _____Interpretive _____Procedural

Agency: Division of Air Quality

Address: 601 57th Street SE

Charleston, WV 25304

Phone Number: 926-0475 Email: tmowrer@wvdep.org

## Fiscal Note Summary

Summarize in a clear and concise manner what impact this measure will have on costs and revenues of state government.

The proposed revisions to this rule should cause no additional impact on costs and revenues of state government.

## Fiscal Note Detail

Show over-all effect in Item 1 and 2 and, in Item 3, give an explanation of Breakdown by fiscal year, including long-range effect.

| FISCAL YEAR | | | |
|---|---|---|---|
| Effect of Proposal | 2007 Increase/Decrease (use "-") | 2008 Increase/Decrease (use "-") | Fiscal Year (Upon Full Implementation) |
| **1. Estimated Total Cost** | $ 0 | $ 0 | $ 0 |
| Personal Services | 0 | 0 | 0 |
| Current Expenses | 0 | 0 | 0 |
| Repairs & Alterations | 0 | 0 | 0 |
| Assets | 0 | 0 | 0 |
| Equipment | 0 | 0 | 0 |
| Other | 0 | 0 | 0 |
| **2. Estimated Total Revenues** | 0 | 0 | 0 |

Rule Title: 45CSR18 - "Control of Air Pollution From Combustion of Solid Waste"

**3. Explanation of above estimates (including long-range effect):**
Please include any increase or decrease in fees in your estimated total revenues.

The proposed revisions to this rule will have a minimal effect on the costs to the Division of Air Quality because they impose no additional requirements beyond current federal requirements. Costs are covered under previous cost estimates.

## MEMORANDUM

Please identify any areas of vagueness, technical defects, reasons the proposed rule **would not** have a fiscal impact, and/or any special issues **not** captured elsewhere on this form.

Date: June 5, 2006

Signature of Agency Head or Authorized Representative

John A. Benedict, Director

FILED
2006 JUN -7 P 4:37
OFFICE WEST VIRGINIA
SECRETARY OF STATE

# TITLE 45
# LEGISLATIVE RULE
# DEPARTMENT OF ENVIRONMENTAL PROTECTION
# ~~DIVISION~~ OFFICE OF AIR QUALITY

## SERIES 18
## ~~TO PREVENT AND~~ CONTROL ~~EMISSIONS~~ OF AIR POLLUTION FROM ~~COMMERCIAL AND INDUSTRIAL~~ COMBUSTION OF SOLID WASTE ~~INCINERATION UNITS~~

### §45-18-1. General.

1.1. Scope. -- This rule establishes and adopts standards of performance and emission ~~standards~~ guidelines pursuant to Sections 111 and 129 of the federal Clean Air Act for ~~commercial~~ the following categories of solid waste incineration units in West Virginia:

1.1.a. Large municipal waste combustors promulgated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR Part 60, Subpart Eb;

1.1.b. Small municipal waste combustion units promulgated by the U.S. EPA under 40 CFR Part 60, Subpart AAAA;

1.1.c. Hospital/ medical/ infectious waste incinerators promulgated by the U.S. EPA under 40 CFR Part 60, Subparts Ce and Ec;

1.1.d. Commercial and industrial solid waste incineration ~~(CISWI)~~ units ~~pursuant to Sections 111 and 129 of the federal Clean Air Act as amended in 1990 (CAA).~~ promulgated by the U.S. EPA under 40 CFR Part 60, Subparts CCCC and DDDD; and

1.1.e. Other solid waste incineration units promulgated by the U.S. EPA under 40 CFR Part 60, Subpart EEEE.

1.2. This rule codifies general procedures and criteria to implement specific standards of performance and emission guidelines set forth in the Code of Federal Regulations and as listed in Tables 18-A and 18-B. The ~~It is the intent of the~~ Secretary ~~to adopt~~ hereby adopts these standards by reference. ~~It is also the intent of the~~ The Secretary ~~to adopt~~ also adopts associated reference methods, performance specifications and other test methods which are appended to these standards.

1.3. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonement of any emission which is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations, or orders of governmental entities having jurisdiction over solid waste incineration units.

~~1.2.~~ 1.4. Authority. -- W.Va. Code ~~§§22-5-1 et seq~~ §22-5-4.

~~1.3.~~ 1.5. Filing Date. -- ~~April 16, 2002~~.

~~1.4.~~ 1.6. Effective Date. -- ~~May 1, 2002~~.

~~1.5.~~ 1.7. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference 40 CFR Part 60 ~~Subpart~~, Subparts Eb, Ec, AAAA, CCCC, EEEE, and specified portions of 40 CFR Part 60 ~~Subpart~~, Subparts Ce and DDDD, effective ~~July 1, 2000, as amended by the Federal Register through~~ June 1,

~~2001~~ 2006.

1.8. Repeal of former rule. -- This rule shall repeal and replace 45CSR24 - "To Prevent and Control Emissions from Hospital/ Medical/ Infectious Waste Incinerators" filed April 18, 2000 and effective May 1, 2000.

1.9. Former Rules. -- This legislative rule amends 45CSR18 - "To Prevent and Control Emissions from Commercial and Industrial Solid Waste Incineration Units" which was filed April 16, 2002, and which became effective May 1, 2002.

**§45-18-2. Definitions.**

2.1. ~~Unless otherwise indicated, definitions of all terms used, but not defined in this subsection, shall have the meaning given to them in 40 CFR Part 60 Subparts CCCC and DDDD. Terms not defined therein shall have the meaning given to them in the federal Clean Air Act or in 40 CFR Part 60, Subparts A and B.~~

~~2.2.~~ "Administrator" means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or his or her designated representative.

2.2. "Air curtain incinerator" means an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of 40 CFR Part 60, Subpart EEEE only, air curtain incinerators include both firebox and trench burner units.

2.3. "Air Pollutants" means solids, liquids, or gases which, if discharged into the air, may result in statutory air pollution.

2.4. "Air Pollution" or 'statutory air pollution' has the meaning ascribed to it in W.Va. Code §22-5-2.

2.5. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.6. "Chemotherapeutic waste" means waste material resulting from the production or use of anti-neoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

2.7. "Clean Air Act" or 'CAA' means the federal Clean Air Act, as amended, 42 U.S.C. §7401 et seq.

~~2.3.~~ 2.8. "Commercial and industrial solid waste incineration ~~(CISWI)~~ unit" or 'CISWI unit' means any combustion ~~device~~ unit that combusts commercial ~~and~~ or industrial waste ~~as defined in this rule.~~, that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limit in Table 18-B applicable to air curtain incinerators burning commercial or industrial waste. ~~The boundaries of a CISWI unit are defined as,~~ While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste ~~fuel~~ feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial waste hopper (if applicable) and extends through two areas: ~~(1)~~ the combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and ~~(2)~~ the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal ~~and~~. The CISWI unit includes all ash handling systems connected to the bottom ash handling

system. A CISWI unit does not include any of the fifteen types of units described in 40 CFR §60.2555, nor does it include any combustion turbine or reciprocating internal combustion engine.

~~2.4.~~ 2.9. "Commercial ~~and~~ or industrial waste" means solid waste that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed ~~device using controlled flame combustion without energy recovery~~, distinct operating unit: whose design does not provide for energy recovery; or operated without energy recovery. Commercial or industrial waste also means solid waste combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility ~~(including field-erected, modular, and custom built incineration units operating with starved or excess air)~~.

2.10. "Energy recovery" means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

~~2.5.~~ 2.11. "Existing" ~~means~~ CISWI ~~units for which~~ unit" means a CISWI unit that commenced construction ~~commenced~~ on or before November 30, 1999. If an owner or operator of ~~a~~ an existing CISWI unit makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to 40 CFR Part 60 Subpart CCCC, and the requirements of subsection ~~4.3~~ 7.3 no longer apply to that unit. If the owner or operator of ~~a~~ an existing CISWI unit makes physical or operational changes to ~~an existing CISWI~~ the unit primarily to comply with the requirements of subsection ~~4.3~~ 7.3, ~~40 CFR~~ then Subpart CCCC does not apply to that unit. Such changes do not qualify as modifications or reconstructions under ~~40 CFR 60~~ Subpart CCCC.

2.12. "Existing HMIWI unit" means a HMIWI unit that commenced construction on or before June 20, 1996. Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with the requirements of subsection 6.3 are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of 40 CFR Part 60, Subpart Ec.

2.13. "Hospital/ medical/ infectious waste incinerator" or 'HMIWI unit' means any device that combusts any amount of hospital waste or medical/ infectious waste as defined in 40 CFR §60.51c.

2.14. "Hospital waste" shall mean discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

2.15. "Institutional waste" means solid waste that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery; operated without energy recovery; or operated with only waste heat recovery. Institutional waste also means solid waste combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

2.16. "Institutional waste incineration unit" means any combustion unit that combusts institutional waste and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field- erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in 40 CFR §60.2994(b)).

2.17. "Intermittent OSWI unit" means an OSWI unit that is designed to allow waste charging but not ash removal, during combustion.

2.18. "Large municipal waste combustor unit" or 'LMWC unit' means a municipal waste combustor with a combustion capacity greater than 250 tons per day of municipal solid waste.

2.19. "Low-level radioactive waste" means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

2.20. "Medical/ infectious waste" shall mean any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed below:

2.20.a. Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate and mix cultures;

2.20.b. Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers;

2.20.c. Human blood and blood products including:

2.20.c.1. Liquid waste human blood;

2.20.c.2. Products of blood;

2.20.c.3. Items saturated or dripping with human blood; or

2.20.c.4. Items that were saturated or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category;

2.20.d. Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips;

2.20.e. Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals;

2.20.f. Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases;

2.20.g. Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes and scalpel blades; and

2.20.h. The definition of medical/ infectious waste does not include hazardous waste identified or listed under the regulations in 40 CFR Part 261; household waste, as defined in 40 CFR §261.4(b)(1); ash from incinerators of

medical/ infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials as identified in 40 CFR §261.4(a)(1).

2.21. "Municipal waste" means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided: that the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and an incineration unit shall not be considered to be combusting municipal waste for purposes of this rule if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal waste.

2.22. Municipal waste combustion unit means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion units (with or without heat recovery), modular combustion units (starved-air or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/ combustion units. Two criteria further define municipal waste combustion units:

2.22.a. Municipal waste combustion units do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under 40 CFR §§60.1020(h) and (i). Municipal waste combustion units also do not include cement kilns that combust municipal solid waste as specified under 40 CFR §60.1020(j). Municipal waste combustion units also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

2.22.b. The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas:

2.22.b.1. The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber;

2.22.b.2. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system; and

2.22.b.3. The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.

2.23. "Municipal waste combustor unit" or 'municipal waste combustor' means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/ combustion units.

2.23.a. Municipal waste combustors do not include pyrolysis/ combustion units located at a plastics/ rubber recycling unit as specified in 40 CFR §60.50b(m). Municipal waste combustors do not include cement kilns firing municipal solid waste as specified in 40 CFR §60.50b(p).

Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

2.23.b. The boundaries of a municipal waste combustor are defined as follows. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through:

2.23.b.1. The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber;

2.23.b.2. The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfer the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and

2.23.b.3. The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.

2.23.c. The municipal waste combustor unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

~~2.6.~~ 2.24. "New~~" means~~ CISWI ~~units~~ unit" means a CISWI unit that ~~for which construction~~ commenced construction after November 30, 1999 or for which modification or reconstruction is commenced on or after June 1, 2001. A CISWI unit shall not be defined as 'new' if physical or operational changes to the unit are primarily to comply with the emission guidelines for existing CISWI units, as referenced in 40 CFR Part 60 Subpart DDDD, which are partially incorporated by reference in this rule. Such changes do not qualify as reconstruction or modification under 40 CFR Part 60, Subpart CCCC.

2.25. "New HMIWI unit" means a HMIWI unit that commenced construction after June 20, 1996 or for which modification is commenced after March 16, 1998. A HMIWI unit shall not be defined as 'new' if physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with emission guidelines for existing HMIWI units, as referenced in 40 CFR Part 60 Subpart Ce, which are partially incorporated by reference in this rule. Such changes are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of 40 CFR Part 60, Subpart Ec.

2.26. "New LMWC unit" means a LMWC unit for which construction is commenced after September 20, 1994, or for which modification or reconstruction is commenced after June 19, 1996.

2.27. "New SMWC unit" means a SMWC unit which commenced construction after August 30, 1999, or commenced reconstruction or modification after June 6, 2001.

2.28. "New OSWI unit" means an OSWI unit that commenced construction after December 9, 2004 or for which modification or reconstruction is commenced on or after June 16, 2006.

2.29. "Other solid waste incineration unit" or 'OSWI unit' means either a very small municipal waste combustion unit or an institutional waste incineration unit. Unit types listed in 40 CFR §60.2887 are not OSWI units. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste

hopper (if applicable) and extends through two areas:

2.29.a. The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

2.29.b. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

2.30. "Pathological waste" means waste material consisting of only human or animal remains, anatomical parts or tissue, the bags or containers used to collect and transport the waste material, and animal bedding (if applicable).

2.31. "Person" means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

~~2.7.~~ 2.32. "Secretary" means the ~~secretary of the department of environmental protection~~ Secretary of the Department of Environmental Protection or such other person to whom the ~~secretary~~ Secretary has delegated authority or duties pursuant to W.Va. Code §§22-1-6 or 22-1-8.

2.33. "Small municipal waste combustion unit" or 'SMWC unit' means a municipal waste combustion unit with the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.

2.34. "Small rural HMIWI unit" shall mean an existing HMIWI unit which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than 2000 pounds per week of hospital waste and medical/ infectious waste. The 2000 pounds per week limitation does not apply during performance tests.

~~2.8.~~ 2.35. "Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial ~~discharges~~ discharges which are point sources subject to permits under ~~section~~ Section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014) ~~For purposes of this rule, the term "solid waste" does not include the waste burned in any of the fifteen (15) types of units described in 40 CFR §60.2020~~.

2.36. "Solid Waste Disposal Act" means the federal Solid Waste Disposal Act, as amended, 42 U.S.C. §6901 et seq.

2.37. "Solid waste incineration unit" means a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, and motels). Such term does not include incinerators or other units required to have a permit under Section 3005 of the Solid Waste Disposal Act. The term "solid waste incineration unit" does not include materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, qualifying small power production facilities, as defined in Section 3(17)(C) of the Federal Power Act (16

U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in Section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with established opacity limitations.

2.38. "Standard Metropolitan Statistical Area" shall mean any areas listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

2.39. "Very small municipal waste combustion unit" means any municipal waste combustion unit that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in 40 CFR §60.2975.

2.40. "Waste heat recovery" means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

~~2.9.~~ 2.41. "You", as used in 40 CFR Part 60 Subparts CCCC and DDDD, means the owner or operator of a CISWI unit.

2.42. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 60 Subparts A, B, Ce, Eb, Ec, AAAA, CCCC, DDDD and EEEE, as applicable. Words and phrases not defined therein shall have the meaning given to them in the Clean Air Act and the Solid Waste Disposal Act.

**§45-18-3. ~~Exemptions.~~ Adoption of Standards.**

3.1. ~~Combustion units exempt pursuant to 40 CFR §§60.2020 and 2555 shall be exempt from the requirements of this rule.~~

~~3.2. Air curtain incinerators shall be exempt from the requirements of this rule, provided that such incinerators are subject to the requirements of 45CSR6.~~ The Secretary hereby adopts and incorporates by reference the provisions of 40 CFR Part 60, Subparts Eb, Ec, AAAA, CCCC, EEEE, the specific portions of 40 CFR Part 60 Subpart Ce identified in subsection 6.3, and the specific portions of 40 CFR Part 60 Subpart DDDD identified in subsection 7.3, including any applicable reference methods, performance specifications and other test methods which are appended to these standards and contained in these subparts, effective June 1, 2006.

**§45-18-4. Requirements for Large Municipal Waste Combustors.**

4.1. No person shall construct or operate, or cause to be constructed or operated a new LMWC unit which results in a violation of 40 CFR Part 60, Subpart Eb or this rule.

4.2. Requirements for New LMWC Units. -- The owner or operator of a new LMWC unit shall comply with all applicable standards, requirements and provisions of 40 CFR Part 60 Subpart Eb, including any reference methods, performance specifications and other test methods associated with Subpart Eb.

**§45-18-5. Requirements for Small Municipal Waste Combustion Units.**

5.1. No person shall construct or operate, or cause to be constructed or operated a new SMWC unit which results in a violation of 40 CFR Part 60, Subpart AAAA or this rule.

5.2. Requirements for New SMWC Units. --

The owner or operator of a new SMWC unit shall comply with all applicable standards, requirements and provisions of 40 CFR Part 60 Subpart AAAA, including any reference methods, performance specifications and other test methods associated with Subpart AAAA.

**§45-18-6. Requirements for Hospital/ Medical/ Infectious Waste Incinerators.**

6.1. No person shall construct, reconstruct, modify, or operate, or cause to be constructed, reconstructed, modified, or operated a HMIWI unit which results in a violation of 40 CFR Part 60 Subpart Ec, specified portions of Subpart Ce, or this rule.

6.2. Requirements for New HMIWI Units. -- The owner or operator of a new HMIWI unit shall comply with all applicable standards, requirements and provisions of 40 CFR Part 60 Subpart Ec, including any reference methods, performance specifications and other test methods associated with Subpart Ec.

6.3. Requirements for Existing HMIWI Units. -- The owner or operator of an existing HMIWI unit shall comply with the following specific applicable standards, requirements and provisions of 40 CFR Part 60 Subpart Ce, including any reference methods, performance specifications and other test methods associated with Subpart Ce:

6.3.a. Emission limits contained in Table 18-A;

6.3.b. Compliance schedule specified in subsections 12.1 through 12.4;

6.3.c. Operator training and qualification requirements specified in 40 CFR §60.34e;

6.3.d. Waste management plan specified in 40 CFR §60.35e;

6.3.e. Compliance, performance testing and monitoring under 40 CFR §60.37e;

6.3.f. Reporting and recordkeeping requirements specified in 40 CFR §60.38e; and

6.3.g. Opacity requirements specified in 40 CFR §60.33e(b).

6.4. Requirements for Existing Small Rural HMIWI Units. -- The owner or operator of an existing small rural HMIWI unit shall comply with the following:

6.4.a. Emission limits contained in Table 18-A, under the Rural category;

6.4.b. Operator training and qualification requirements specified in 40 CFR §60.34e;

6.4.c. Waste management plan specified in 40 CFR §60.35e;

6.4.d. No later than July 28, 2001, an initial equipment inspection shall be conducted. Annual equipment inspections shall be conducted thereafter (no more than 12 months following the previous annual equipment inspection), as outlined in paragraphs 6.4.d.1 through 6.4.d.17. Within 10 operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the Secretary establishing an alternative repair schedule. All equipment inspections shall include the following:

6.4.d.1. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation: cleaning of pilot flame sensor, as necessary;

6.4.d.2. Ensuring proper adjustment of primary and secondary chamber combustion air, and adjustment as necessary;

6.4.d.3. Inspection of hinges and door latches and lubrication as necessary;

6.4.d.4. Inspection of dampers, fans, and blowers for proper operation;

6.4.d.5. Inspection of HMIWI unit door and door gaskets for proper sealing;

6.4.d.6. Inspection of motors for proper operation;

6.4.d.7. Inspection of primary chamber refractory lining; cleaning and repairing or replacing lining as necessary;

6.4.d.8. Inspection of incinerator shell for corrosion and hot spots;

6.4.d.9. Inspection of secondary and tertiary chamber and stack, cleaning as necessary;

6.4.d.10. Inspection of mechanical loader, including limit switches, for proper operation, if applicable;

6.4.d.11. Visual inspection of waste bed (grates), and repairing or sealing, as appropriate;

6.4.d.12. For the burn cycle that follows the inspection, documentation that the incinerator is operating properly and making any necessary adjustments;

6.4.d.13. Inspection of air pollution control device(s) for proper operation, if applicable;

6.4.d.14. Inspection of waste heat boiler systems to ensure proper operation, if applicable;

6.4.d.15. Inspection of bypass stack components;

6.4.d.16. Ensuring proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

6.4.d.17. Generally observing that the equipment is maintained in good operating condition;

6.4.e. Compliance and performance testing in accordance with the following:

6.4.e.1. Testing requirements in 40 CFR §§60.56c(a), (b)(1) through (b)(9), (b)(11) (mercury only), and (c)(1). The 2000 pound per week limitation does not apply during performance tests;

6.4.e.2. Establishment of maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits;

6.4.e.3. Following the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, the HMIWI unit shall not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests;

6.4.e.4. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s). Operation above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO and dioxin/ furan emission limits, except as provided in paragraph 6.4.e.5; and

6.4.e.5. The owner or operator of a HMIWI unit may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the HMIWI unit is not in violation of the applicable

emission limit(s). Repeat performance tests conducted pursuant to this section must be conducted using the identical opening parameters that indicated a violation under paragraph 6.4.e.4;

6.4.f. Monitoring in accordance with the following:

6.4.f.1. Installation, calibration (to manufacturer's specifications), maintenance and operation of a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum once every minute throughout operation;

6.4.f.2. Installation, calibration (to manufacturer's specifications), maintenance and operation of a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI unit;

6.4.f.3. The owner or operator of a HMIWI unit shall obtain monitoring data at all times during HMIWI unit operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating hours per calendar quarter that the HMIWI unit is combusting hospital waste or medical/ infectious waste;

6.4.g. Maintenance of records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or repair date approved by the Secretary;

6.4.h. Submission of an annual report containing information recorded under subdivision 6.4.g. no later than 60 days following the year in which data were collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report (once the unit is subject to permitting requirements under 45CSR30, the owner or operator must submit these reports semiannually). The report shall be signed and certified in accordance with subsection 6.5; and

6.4.i. Opacity requirements specified in 40 CFR §60.52c(b).

6.5. Where reports are required to be submitted to the Secretary under the terms of a permit issued pursuant to 45CSR13, 45CSR14, 45CSR19 or 45CSR30, the reports shall be signed and certified in accordance with the requirements of the applicable permitting rule. Where reports are required to be submitted to the Secretary under this rule, and no permit is in effect under 45CSR13, 45CSR14, 45CSR19 or 45CSR30, the report shall be signed by the facility manager and shall contain a certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**§45-18-7. Requirements for Commercial and Industrial Solid Waste Incinerators.**

~~4.1.~~ 7.1. No person ~~may~~ shall construct, reconstruct, modify, or operate, or cause to be constructed, reconstructed, modified, or operated a CISWI unit which results in a violation of 40 CFR Part 60 Subpart CCCC, specified portions of Subpart DDDD, or this rule.

~~4.2.~~ 7.2. ~~Each~~ Requirements for New CISWI Units. -- The owner or operator of a new CISWI unit shall comply with all ~~of the~~ applicable standards, requirements and provisions of 40 CFR Part 60 Subpart CCCC, including any reference methods, performance specifications and other test methods associated with Subpart CCCC; ~~effective July 1, 2000, as amended by the Federal Register through June 1, 2001~~.

~~4.3.~~ 7.3. ~~Each~~ Requirements for Existing CISWI Units. -- The owner or operator of an existing CISWI unit shall comply with the following specific applicable standards, requirements and provisions of 40 CFR Part 60

Subpart DDDD, including any reference methods, performance specifications and other test methods associated with Subpart DDDD:

~~4.3.a.~~ 7.3.a. Emission limits ~~presented~~ contained in Table ~~1~~ 18-B;

~~4.3.b.~~ 7.3.b. Compliance dates specified in ~~section 7~~ subsection 12.5, including increments of progress toward compliance specified in that ~~section~~ subsection and 40 CFR §§60.2575 through 60.2615;

~~4.3.c.~~ 7.3.c. Waste management plan requirements specified in 40 CFR §§60.2620 through 60.2630;

~~4.3.d.~~ 7.3.d. Operator training and qualification requirements specified in 40 CFR §§60.2635 through 60.2665;

~~4.3.e.~~ 7.3.e. Emission limitations and operating limits specified in 40 CFR §§60.2670 through 60.2685;

~~4.3.f.~~ 7.3.f. Performance testing requirements specified in 40 CFR §§60.2690 through 60.2695;

~~4.3.g.~~ 7.3.g. Initial compliance requirements in 40 CFR §§60.2700 through 60.2705;

~~4.3.h.~~ 7.3.h. Continuous compliance requirements specified in 40 CFR §§60.2710 through 60.2725;

~~4.3.i.~~ 7.3.i. Monitoring requirements specified in 40 CFR §§60.2730 through 60.2735; ~~and~~

~~4.3.j.~~ 7.3.j. Recordkeeping and reporting requirements specified in 40 CFR §§60.2740 through 60.2800~~.~~; and

7.3.k. Requirements for air curtain incinerators specified in 40 CFR §§60.2850 through 60.2870.

**§45-18-8. Requirements for Other Solid Waste Incineration Units.**

8.1. No person shall construct or operate, or cause to be constructed or operated a new OSWI unit which results in a violation of 40 CFR Part 60, Subpart EEEE or this rule.

8.2. Requirements for New OSWI Units. -- The owner or operator of a new OSWI unit shall comply with all applicable standards, requirements and provisions of 40 CFR Part 60 Subpart EEEE, including any reference methods, performance specifications and other test methods associated with Subpart EEEE.

**~~§45-18-5.~~ §45-18-9. Secretary.**

~~5.1.~~ 9.1. Any and all references in 40 CFR Part 60 Subparts Ce, Eb, Ec, AAAA, CCCC, ~~and~~ DDDD, and EEEE to the "Administrator" are amended to be the "Secretary" except in the following references which shall remain "Administrator":

~~5.1.a.~~ 9.1.a. Where the federal regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the ~~State~~ Secretary;

5.1.b. 9.1.b. Where provisions occur which refer to:

~~5.1.b.1.~~ 9.1.b.1. alternate means of emission ~~limitiations~~ limitations;

~~5.1.b.2.~~ 9.1.b.2. alternate control technologies;

~~5.1.b.3.~~ 9.1.b.3. innovative technology waivers;

~~5.1.b.4.~~ 9.1.b.4. ~~alternative~~ alternate test methods;

~~5.1.b.5.~~ 9.1.b.5. ~~alternative~~ alternate monitoring methods;

~~5.1.b.6.~~ 9.1.b.6. waivers/adjustments to recordkeeping and reporting; or

~~5.1.b.7.~~ 9.1.b.7. applicability determinations; ~~or~~

~~5.1.c.~~ 9.1.c. Where the context of the regulation clearly requires otherwise~~.~~;

9.1.d. The requirements of 40 CFR §60.56c(i) establishing operating parameters when using controls other than those listed in 40 CFR §60.56c(d); and

9.1.e. Alternative methods of demonstrating compliance under 40 CFR §60.8.

**~~§45-18-6.~~ §45-18-10. Permits.**

10.1. On or before September 15, 2000, the owner or operator of existing HMIWI units shall operate pursuant to a Title V permit in accordance with the requirements of 45CSR30.

10.2. The owner or operator of a new HMIWI unit shall submit to the Secretary a complete application for a Title V permit in accordance with the requirements of 45CSR30 within twelve (12) months after commencing operation.

~~6.1.~~ 10.3. On or before December 1, 2003, the owner or operator of existing CISWI units ~~subject to this rule~~ shall operate pursuant to a CAA Title V permit in accordance with the requirements of ~~45 CSR 30 , provided that existing CISWI units may be required to apply for and obtain a Title V permit prior to that date as specified in 40 CFR §60.2805~~ 45CSR30.

~~6.2.~~ 10.4. ~~New~~ The owner or operator of a new CISWI ~~units subject to this rule shall operate pursuant to a CAA Title V permit by December 1, 2003, or~~ unit shall submit to the Secretary a complete application for a Title V permit in accordance with the requirements of 45CSR30 within twelve (12) months after commencing operation, ~~whichever date is later,~~ provided that a new CISWI unit may be required to apply for and obtain a Title V permit prior to ~~either of those dates~~ this date, as specified in 40 CFR ~~§60.2242~~ §60.2242(b).

10.5. The owner or operator of a new OSWI unit shall submit a complete application for a Title V permit in accordance with the requirements of 45CSR30 within twelve (12) months after commencing operation, provided that a new OSWI unit may be required to apply for and obtain a Title V permit prior to this date, as specified in 40 CFR §60.2967(b).

~~6.3.~~ 10.6. Nothing contained in this rule shall be construed or inferred to mean that permit requirements in accordance with applicable rules shall be in any way limited or inapplicable, including~~;~~ but not limited to~~;~~ the permitting requirements under ~~45 CSR 13, 45 CSR 14, and 45 CSR 19~~ 45CSR13, 45CSR14, 45CSR19, 45CSR25 and 45CSR30.

**§45-18-11. Recordkeeping, Reports and Testing.**

11.1. The owner or operator of a LMWC unit, SMWC unit, HMIWI unit, CISWI unit, or OSWI unit subject to 40 CFR Part 60, Subparts Ce, Eb, Ec, AAAA, CCCC, DDDD or EEEE shall comply with all applicable recordkeeping and reporting requirements, reference methods, performance specifications and test methods associated with these subparts.

11.2. All notices, reports and other information required to be submitted to the Administrator pursuant to 40 CFR Part 60, Subparts Ce, Eb, Ec, AAAA, CCCC, DDDD and EEEE shall also be submitted to the Secretary.

**~~§45-18-7.~~ §45-18-12. Compliance Dates ~~for Existing CISWI Units~~.**

12.1. Existing HMIWI Units. -- Except as provided in subsections 12.2, 12.3, and 12.4, on or after July 28, 2001, the owner or operator of any exisitng HMIWI unit shall be in compliance with all applicable provisions of this rule.

12.2. No later than November 28, 2000, the owner or operator of an existing HMIWI unit required to install air pollution control equipment shall submit a compliance plan and schedule subject to the approval of the Secretary that meets the following criteria:

12.2.a. No later than July 28, 2001, a facility that plans to install air pollution control equipment other than a dry scrubber followed by a fabric filter, a wet scrubber or dry scrubber followed by a fabric filter and a wet scrubber shall submit a petition for site specific operating parameters under 40 CFR §60.56c(i) to the Administrator and the Secretary;

12.2.b. No later than July 28, 2001, services of an architectural and engineering firm regarding air pollution device(s) shall be obtained;

12.2.c. No later than January 28, 2002, design drawings of an air pollution device(s) shall be ordered;

12.2.d. No later than January 28, 2002, air pollution device(s) shall be ordered;

12.2.e. No later than July 28, 2002, site preparation for installation of the air pollution device(s) shall be initiated;

12.2.f. No later than April 28, 2002, initial startup of the air pollution device(s) shall be conducted;

12.2.g. No later than April 28, 2002, initial compliance test(s) of the air pollution device(s) shall be conducted; and

12.2.h. No later than September 16, 2002, the owner or operator of an existing HMIWI unit shall not allow or cause to be allowed a HMIWI unit to be operated except in compliance with all applicable provisions of this rule.

12.3. An owner or operator of an existing HMIWI unit who submits in writing to the Secretary a request for an extension to comply beyond the dates required by subsection 12.2, shall submit to the Secretary no later than April 28, 2001, the following information:

12.3.a. An analysis to support the need for an extension, including an explanation of why a time period up to three years after July 28, 2000 is not sufficient time to comply with subsection 12.2;

12.3.b. A demonstration of the feasibility to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

12.3.c. Measurable and enforceable incremental steps of progress to be taken towards compliance with the emission limits contained in Table 18-A.

12.4. The owner or operator of an existing HMIWI unit will be notified in writing by the Secretary of his or her decision as to whether an extension shall be granted or denied. The owner or operator shall comply with one of the following:

12.4.a. If the request for extension is denied, the owner or operator shall submit a compliance plan in accordance with subsection 12.2 no later than 30 days after denial of the request for extension; or

12.4.b. If the request for extension is granted, the owner or operator shall submit a compliance plan and schedule commensurate with the granted extension no later than 30 days after the date the request for extension has been granted.

~~7.1.~~ 12.5. ~~One year after the effective date of the U.S. EPA's approval of the 111(d)/129 State Plan for Commercial and Industrial Waste Incineration Units;~~ Existing CISWI Units. -- On or after June 10, 2004, the owner or operator of any existing CISWI ~~units~~ unit shall be in compliance with all ~~of the~~ applicable provisions of this rule, provided that existing CISWI units may comply with the following increments of progress:

~~7.1.a.~~ 12.5.a. A final control plan shall be submitted no later than ~~one (1) year after the effective date of State Plan approval~~ June 10, 2004; and

~~7.1.b.~~ 12.5.b. Final compliance shall be achieved by ~~a date not later than the earlier of:~~

~~7.1.b.1.~~ December 1, 2005~~; or~~

~~7.1.b.2. Three (3) years after the effective date of State Plan approval.~~

**§45-18-13. Exemptions.**

13.1. The exemption provisions under 40 CFR Part 60 Subparts Ce, Eb, Ec, AAAA, CCCC, DDDD and EEEE shall be incorporated in this rule.

13.2. Temporary air curtain incinerators approved by the Secretary under the requirements of 45CSR§6-4.8 that are operated for the disposal of only on-site land clearing debris (as defined in 45CSR6) shall be exempt from the requirements of this rule.

13.3. Temporary incinerators approved by the Secretary under the requirements of 45CSR§6-9.2 that are operated for the disposal of animal or poultry remains and related pathological waste shall be exempt from the requirements of this rule.

13.4. Pathological waste incineration units. -- Any institutional waste incineration unit, very small municipal waste combustion unit, incinerator or combustor shall be exempt from the requirements of this rule provided:

13.4.a. The unit burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, or chemotherapeutic waste;

13.4.b. The owner or operator of the unit keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste or chemotherapeutic waste is incinerated;

13.4.c. The unit is subject to the requirements of 45CSR6 or 45CSR25; and

13.4.d. The owner or operator of the unit notifies the Administrator and the Secretary that the unit meets these criteria.

13.5. Any incinerator or combustor subject to 40 CFR Part 60 Subparts Cb, E, Ea, O, BBBB, or FFFF shall be exempt from the requirements of this rule.

13.6. Any incinerator or combustor subject to 42 U.S.C. §6925, 45CSR25 and 33CSR20 shall be exempt from the requirements of this rule.

13.7. Any combustor subject to 40 CFR Part 63, Subpart EEE shall be exempt from the requirements of this rule.

**~~§45-18-8~~ §45-18-14. Effect of the Rule.**

~~8.1.~~ 14.1. Nothing in this rule shall be construed to allow or permit the installation, establishment or construction of a new municipal or commercial solid waste facility utilizing incineration technology for the purpose of solid waste incineration in violation of W.Va. Code §22-15-19.

**~~§45-18-9~~ §45-18-15. Inconsistency Between Rules.**

~~9.1.~~ 15.1. In the event of any inconsistency between this rule and any other ~~existing~~ rule of the West Virginia Department of Environmental Protection, ~~such~~ the inconsistency shall be resolved by the determination of the Secretary and ~~such~~ the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

## TABLE 18-A
## Emission Limits for Existing Hospital/Medical/Infectious Waste Incinerators

| Pollutant | Units (7% oxygen, dry basis) | HMIWI Unit Size | | | |
|---|---|---|---|---|---|
| | | Small | Medium | Large | Rural |
| Particulate Matter | mg/ dscm (gr/dscf)[a] | 115 (0.05) | 69 (0.03) | 34 (0.015) | 197 (0.086) |
| Carbon Monoxide | ppmv[b] | 40 | 40 | 40 | 40 |
| Dioxins/furans | ng/dscm total CCD/CDF (gr/$10^9$ dscf) or ng/dscm TEQ (gr/$10^9$ dscf)[c] | 125 (55) or 2.3 (1.0) | 125 (55) or 2.3 (1.0) | 125 (55) or 2.3 (1.0) | 800 (350) or 15 (6.6) |
| Hydrogen chloride | ppmv or percent reduction | 100 or 93% | 100 or 93% | 100 or 93% | 3100 |
| Sulfur dioxide | ppmv | 55 | 55 | 55 | 55 |
| Nitrogen oxides | ppmv | 250 | 250 | 250 | 250 |
| Lead | mg/dscm (gr/$10^3$ dscf) or % reduction[d] | 1.2 (0.52) or 70% | 1.2 (0.52) or 70% | 1.2 (0.52) or 70% | 10 (4.4) |
| Cadmium | mg/dscm (gr/$10^3$ dscf) or % reduction | 0.16 (0.07) or 65 % | 0.16 (0.07) or 65 % | 0.16 (0.07) or 65 % | 4 (1.7) |
| Mercury | mg/dscm (gr/$10^3$ dscf) or % reduction | 0.55 (0.24) or 85% | 0.55 (0.24) or 85% | 0.55 (0.24) or 85% | 7.5 (3.3) |

[a] milligrams per dry standard cubic meter (grains per dry standard cubic feet)

[b] parts per million by volume

[c] nanograms per dry standard cubic meter total dioxins/furnas (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)

[d] milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)

45CSR18

**TABLE ~~1~~ 18-B**
**Emission Limits for Existing Commercial and Industrial Solid Waste Incineration Units**

| Air Pollutant | Emission Limit[a] | Averaging Time | Performance Test Methods |
|---|---|---|---|
| Cadmium | 0.004 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Carbon monoxide | 157 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 10, 10A, or 10B, of 40 CFR Part 60, Appendix A) |
| Dioxins/furans (toxic equivalency basis) | 0.41 nanograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 23 of 40 CFR Part 60, Appendix A) |
| Hydrogen chloride | 62 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 26A of 40 CFR Part 60, Appendix A) |
| Lead | 0.04 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Mercury | 0.47 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of 40 CFR Part 60, Appendix A) |
| Opacity | 10 percent | 6-minute averages | Performance test (Method 9 of 40 CFR Part 60, Appendix A) |
| Oxides of nitrogen | 388 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 7, 7A, 7C, 7D, or 7E of 40 CFR Part 60, Appendix A) |
| Particulate matter | 70 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 5 or 29 of 40 CFR Part 60, Appendix A) |
| Sulfur dioxide | 20 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 6 or 6C of 40 CFR Part 60, Appendix A) |

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

Federal Register

Wednesday,
May 10, 2006

Part II

# Environmental Protection Agency

40 CFR Part 60
Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[EPA–HQ–OAR–2005–0117; FRL–8164–9]**

**RIN 2060–AL97**

## Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating amendments to the air emission standards for existing and new large municipal waste combustor (MWC) units. Standards for MWC units were promulgated in 1995 and implemented in 2000. The Clean Air Act (CAA) requires review of these standards every 5 years. The review is to be conducted in accordance with CAA section 129 and section 111 requirements, with standards revised as necessary. For existing MWC units, the goal of this action is to amend the standards to reflect the actual performance levels being achieved by existing MWC units. For new MWC units, the goal of this action is to amend the standards to reflect the performance level achievable by MWC units constructed in the future. Other technical improvements are also being made to the standards for MWC units.

**DATES:** *Effective Dates:* The amendment to § 60.50 is effective May 10, 2006. The final rule amendments to the standards for new sources in subpart Eb of 40 CFR part 60 (§§ 60.50b, 60.51b, 60.52b, 60.53b, 60.54b, 60.57b, 60.58b, 60.59b) are effective November 6, 2006. The final rule amendments to the emission guidelines for existing sources in subpart Cb of 40 CFR part 60 (§§ 60.30b, 60.31b, 60.32b, 60.33b, 60.34b, Tables 1, 2, and 3 to subpart Cb) are effective July 10, 2006.

**ADDRESSES:** *Docket.* EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2005–0117. All documents in the docket are listed on the *www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Air and Radiation Docket, Docket ID No. EPA–HQ–OAR–2005–0117, EPA/DC, EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

**FOR FURTHER INFORMATION CONTACT:** Mr. Walt Stevenson, Energy Strategies Group, Sector Policies and Programs Division (D243–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5264; e-mail address: *stevenson.walt@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

*Regulated Entities.* Categories and entities potentially affected by the final rule are MWC units with a design combustion capacity of greater than 250 tons per day. The NSPS and emission guidelines for municipal waste combustors affect the following categories of sources:

| Category | NAICS code | SIC code (optional) | Examples of potentially regulated entities |
|---|---|---|---|
| Industry, Federal government, and State/local/tribal governments. | 562213<br>92411 | 4953<br>9511 | Solid waste combustors or incinerators at waste-to-energy facilities that generate electricity or steam from the combustion of garbage (typically municipal solid waste); and solid waste combustors or incinerators at facilities that combust garbage (typically municipal solid waste) and do not recover energy from the waste combustion. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the final rule. To determine whether your facility is regulated by the final rule, you should examine the applicability criteria in 40 CFR 60.32b of subpart Cb and 40 CFR 60.50b of subpart Eb. If you have any questions regarding the applicability of the final rule to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*Docket.* The docket number for the large MWC NSPS (40 CFR part 60, subpart Eb) and emission guidelines (40 CFR part 60, subpart Cb) is Docket ID No. EPA–HQ–OAR–2005–0117.

*Worldwide Web (WWW).* In addition to being available in the docket, an electronic copy of the final rule is available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA posted a copy of the final rule on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control.

*Judicial Review.* Under CAA section 307(b)(1), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by July 10, 2006. Under CAA section 307(d)(7)(B), only an objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that "only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for the EPA to convene a proceeding for reconsideration, "if the person raising the objection can demonstrate to the EPA that is was impracticable to raise such an objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to the EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania

Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20004.

*Organization of This Document.* The following outline is provided to aid in locating information in this preamble.

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## I. Background Information

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to develop and adopt NSPS and emission guidelines for solid waste incineration units pursuant to CAA sections 111 and 129. Section 111(b) of the CAA (NSPS program) addresses emissions from new MWC units and section 111(d) of the CAA (emission guidelines program) addresses emissions from existing MWC units. The NSPS are directly enforceable Federal regulations. The emission guidelines are not directly enforceable but, rather, are implemented by State air pollution control agencies through sections 111(d)/129 State plans.

In December 1995, EPA adopted NSPS (subpart Eb of 40 CFR part 60) and emission guidelines (subpart Cb of 40 CFR part 60) for MWC units with a combustion capacity greater than 250 tons per day. These MWC units are referred to as large MWC units. Both the NSPS and emission guidelines require compliance with emission limitations that reflect the performance of maximum achievable control technology (MACT). The NSPS apply to new MWC units after the effective date of the NSPS or at start-up, whichever is later. The emission guidelines apply to existing MWC units built before the NSPS applicability date and required compliance by December 2000. These retrofits were completed on time, and the controls installed to meet the required emission limitations were highly effective in reducing emissions of all of the CAA section 129 pollutants emitted by large MWC units.

Section 129(a)(5) of the CAA requires EPA to conduct a 5-year review of the NSPS and emissions guidelines and, if appropriate, revise the NSPS and emission guidelines. The EPA has completed that review. On December 19, 2005 (70 FR 75348), EPA proposed amendments to the NSPS and emission guidelines to reflect the revisions EPA believes are appropriate. EPA carefully considered comments received on the proposal, and this action promulgates those revisions.

## II. Summary of Amendments

### *A. What are the major revisions resulting from the review?*

Two major revisions result from EPA's review: Revisions to the emission limits and revisions to compliance testing provisions. Relative to the 1995 emission guidelines for existing MWC units, the emission limits are revised for dioxin, cadmium, lead, mercury, and particulate matter. The nitrogen oxides emission limit for mass burn rotary waterwall type MWC units is also revised. Relative to the 1995 NSPS for new MWC units, the emission limits are revised for cadmium, lead, mercury, and particulate matter. For both the emission guidelines and NSPS, the compliance testing provisions have been revised to require increased data availability from continuous emissions monitoring systems (CEMS). The revisions require CEMS to generate at least 95 percent data availability on a calendar year basis and at least 90 percent data availability on a calendar quarter basis. The emission guidelines and NSPS have also been revised to allow the optional use of CEMS to monitor particulate matter and mercury.

### *B. What are the revised emission limits?*

The final amendments revise many of the emission limits in both the NSPS and emission guidelines. Relative to the NSPS, the most significant revisions are in the cadmium and mercury emission limits. Relative to the emission guidelines, the most significant revisions are in the dioxin/furan (for units equipped with electrostatic precipitators (ESPs)) and mercury emission limits, as well as nitrogen oxides for mass burn rotary combustors. Table 1 of this preamble contains a summary of the final emission limits.

TABLE 1.—FINAL EMISSION LIMITS FOR LARGE MWC UNITS

| Pollutant | Emission limit for existing MWC units [a] | Emission limit for new MWC units [a] |
|---|---|---|
| Dioxin/furan (CDD/CDF) | 30 nanograms per dry standard cubic meter total mass basis (non-ESP equipped units)/ 35 nanograms per dry standard cubic meter total mass basis (ESP-equipped units). | [b] 13 nanograms per dry standard cubic meter total mass basis. |
| Cadmium (Cd) | 35 micrograms per dry standard cubic meter .. | 10 micrograms per dry standard cubic meter. |

TABLE 1.—FINAL EMISSION LIMITS FOR LARGE MWC UNITS—Continued

| Pollutant | Emission limit for existing MWC units [a] | Emission limit for new MWC units [a] |
|---|---|---|
| Lead (Pb) | 400 micrograms per dry standard cubic meter | 140 micrograms per dry standard cubic meter. |
| Mercury (Hg) | 50 micrograms per dry standard cubic meter or 85 percent reduction of mercury emissions. | 50 micrograms per dry standard cubic meter or 85 percent reduction of mercury emissions. |
| Particulate Matter (PM) | 25 milligrams per dry standard cubic meter | 20 milligrams per dry standard cubic meter. |
| Hydrogen chloride (HCl) | [b] 29 parts per million dry volume or 95 percent reduction of hydrogen chloride emissions. | [b] 25 parts per million dry volume or 95 percent reduction of hydrogen chloride emissions. |
| Sulfur dioxide ($SO_2$) | [b] 29 parts per million dry volume or 75 percent reduction of sulfur dioxide emissions. | [b] 30 parts per million dry volume or 80 percent reduction of sulfur dioxide emissions. |
| Nitrogen Oxides ($NO_X$) | Varies by combustor type (see table 1 to subpart Cb of part 60). | [b] 180 parts per million dry volume/150 parts per million dry volume after first year of operation. |

[a] All emission limits are measured at 7 percent oxygen.
[b] No change promulgated.

*C. Are other amendments being promulgated?*

The final amendments also make the following changes based on information received during implementation of the MWC emission guidelines and apply equally to the NSPS and emission guidelines, unless otherwise specified. Following is a list of the most significant changes compared to the 1995 NSPS and emission guidelines.

Operating Practices

• The final amendments revise the operator stand-in provisions in § 60.54b(c) to clarify how long a shift supervisor is allowed to be off site when a provisionally certified control room operator is standing in. A provisionally certified control room operator may stand in for up to 12 hours without notifying EPA; for up to 2 weeks if EPA is notified; and longer than 2 weeks if EPA is notified and the MWC owner demonstrates to EPA that a good faith effort is being made to ensure that a certified chief facility operator or certified shift supervisor is on site as soon as practicable. In the final amendments, a provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or chief facility operator position is able to serve up to 6 months without notification before taking the American Society of Mechanical Engineer's (ASME) Standard for the Qualification and Certification of Resource Recovery Facility Operators (QRO) certification exam for full certification.

• The final amendments add two additional classifications of MWC units to the emission guidelines and add associated carbon monoxide limits to assure good combustion practices. The two new classifications are "spreader stoker fixed floor refuse-derived fuel (RDF)-fired/100 percent coal capable combustor" and "semi-suspension RDF-fired combustor/wet RDF process conversion."

Operating Parameters

• The final amendments revise § 60.58b(m) to establish an 8-hour block average for measuring activated carbon injection (ACI) rate. This makes the NSPS and emission guidelines for large MWC units consistent with the newer (year 2000) CAA section 129 regulations for small MWC units (40 CFR part 60, subparts AAAA and BBBB), which monitor ACI rate using an 8-hour block average.

Performance Testing and Monitoring

• The final amendments revise the annual mercury testing requirements to additionally allow for optimization of mercury control operating parameters by waiving operating parameter limits during the mercury performance test and during the 2 weeks preceding the mercury performance test. This is already done for dioxin testing. It is recommended that both dioxin and mercury testing be done during optimization testing.

• The final amendments revise the relative accuracy criterion for sulfur dioxide and carbon monoxide CEMS.

• The final amendments add flexibility to the annual compliance testing schedule so that a facility tests once per calendar year, but no less than 9 months and no more than 15 months since the previous test. The revision provides flexibility to facilities when facing scheduled and unscheduled outages, adverse local weather conditions, and other conditions, while still meeting the intent of the compliance testing. The final amendments also require at least five compliance tests be completed in each 5-year calendar period.

• The final amendments allow the use of parametric monitoring limits from an exceptionally well-operated MWC unit (*i.e.*, MWC unit with dioxin emissions for 2 years in a row below 15 nanogram/dry standard cubic meter (ng/dscm) for existing MWC units and below 7 ng/dscm for new MWC units) be applied to all identical units at the same plant site without retesting for dioxin.

• The final amendments revise the particulate matter and mercury compliance testing requirements to allow the optional use of a particulate matter CEMS or mercury CEMS in place of stack testing and would allow the optional use of multi-metal, hydrogen chloride, dioxin/furan CEMS in place of stack tests after which performance specifications for these CEMS are promulgated.

• The final amendments add provisions for monitoring the activated carbon injection pressure or equivalent parameter.

• The final amendments revise the data availability requirement for CEMS. Data must be available for at least 90 percent of the hours of operation per calendar quarter and at least 95 percent of the hours of operation per calendar year.

• The final amendments clarify the exclusion of monitoring data from compliance calculations during periods of startup, shutdown, or malfunctions, but requires identification of such periods and an explanation for exclusion of such data.

Other Amendments

• The final amendments clarify the meaning of the term "Administrator" in the standards.

*D. Is an implementation schedule being promulgated?*

Yes. Under the emission guidelines, and consistent with CAA section 129, revised State plans containing the revised emission limits and other

requirements in the revised emission guidelines are due within 1 year after promulgation of these revisions. That is, revised State plans must be submitted to EPA by May 10, 2007.

The emission guidelines then allow MWC units two compliance schedules. As a first option, MWC units have up to 2 years from the date of EPA approval of a State plan to comply. Consistent with CAA section 129, EPA expects States to require compliance as expeditiously as practicable. Large MWC units have already installed the emission control equipment necessary to meet the revised limits, and EPA, therefore, anticipates that most State plans will include compliance dates less than 2 years following approval of State plans. In most cases, the only changes necessary are to review the revisions and adjust the emission monitoring and reporting accordingly. State plan revisions are not approvable until the related State rule or enforceable mechanism is adopted and becomes effective. As a second compliance option, an owner or operator of an MWC unit that plans a substantial upgrade, can apply to the EPA Administrator (if the MWC is regulated by a Federal Section 111(d)/129 plan) or the State Administrator (if the MWC is regulated by an EPA approved State section 111(d)/129 plan), for a site-specific compliance schedule that can extend up to 5 years following publication of these amendments.

In revising the emission limits in a State plan, a State has two options. First, it could insert the new emission limits in place of the current emission limits, follow procedures in 40 CFR part 60, subpart B, and submit a revised State plan to EPA for approval. If the revised State plan contains only the new emission limits (*i.e.*, the existing emission limits are not retained), then the new emission limits must become effective immediately since the current limits would be removed from the State plan. A second approach would be for a State plan to include both the current and the new emission limits. This allows a phased approach in applying the new limits. That is, the State plan would make it clear that the existing emission limits remain in force and apply until the date the new emission limits are effective (as defined in the State plan).

*E. Has EPA revised the applicability date of the NSPS?*

No. The applicability date for the NSPS units remains September 20, 1994; however, units for which construction or modification is commenced after December 19, 2005, are subject to more stringent emission limits. Under the final amendments, units that commenced construction after September 20, 1994, and on or before December 19, 2005, continue to be subject to the NSPS emission limits that were promulgated in 1995 and that remain in the 40 CFR part 60, subpart Eb NSPS. Units that commence construction after December 19, 2005, are subject to the new NSPS limits being added to subpart Eb.

The EPA is not aware of, and commenters did not identify, any MWC units that were modified or reconstructed after June 19, 1996 (effective date of the December 19, 1995 NSPS), therefore, EPA simplified the applicability text for the NSPS to be MWC units that commenced construction, modification, or reconstruction after September 20, 1994. The use of one date is the most understandable. As noted in adopting regulations for MWC in 1995, any change made to an MWC unit for the principal purpose of complying with the subpart Cb, 40 CFR part 60, emission guidelines or subpart Eb NSPS is not considered to be a modification or reconstruction.

## III. Responses to Significant Comments

*A. What areas of the proposal received the most comments?*

The comment letters received by EPA on the proposed rule, identified more than 50 issues for consideration. The most common issue was related to the statistical methods used by EPA to assist in development of the proposed emission limits. Associated comments included those on the adequacy of the database, appropriateness of the data screening procedures, and development of emissions variability factors. In addition, EPA received legal comments on recalculating the MACT floor.

*B. Why did EPA not recalculate the MACT floor?*

Section 129(a)(5) of the CAA requires EPA to "* * * review, and in accordance with this section and section 111, revise" performance standards and other requirements under section 129. The provision does not mandate that this review be conducted in a single, unvarying manner. One commenter, nevertheless, maintains that because of the reference to "this section and section 111," EPA is necessarily required to repeat the CAA section 129(a) standards development process, which includes re-determining the MACT floor for new and existing MWC units. EPA does not read the provision as requiring another analysis of the MACT floor. A more natural reading of the provision is that EPA is to conduct a periodic review to determine whether advances in technology warrant revisions to the standards. This is the same general approach taken by EPA in reviewing CAA section 111 standards.

There is nothing in the language of section 129(a)(5) that speaks directly to the issue of whether another floor analysis is required. EPA believes that a reasonable interpretation of the reference cited by the commenter leads to the conclusion that such an analysis is not required. EPA believes that a reasonable interpretation of the reference requires EPA to determine "the degree of emission limitation achievable through application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." See, Clean Air Act section 111(a)(1). Recalculating the floor as advocated by the commenter would eviscerate the Administrator's ability to effectively consider factors that Congress has otherwise mandated be considered. That is, once a new floor has been calculated, the Administrator cannot establish emission limits which are less stringent than that floor even if consideration of costs and other factors would otherwise lead him to conclude that this is appropriate. EPA believes that Congress would have been explicit in its instructions had it intended this result. Since it was not, EPA believes that a reasonable interpretation of section 129(a)(5) is that it does not require EPA to recalculate the floor for existing units.

EPA also believes that interpreting section 129(a)(5) as requiring additional floor determinations could effectively convert existing source standards into new source standards. After 5 years, all sources will be performing at least at the existing source MACT level of performance and some sources will be performing at the new source MACT level of performance. As a result, it is likely that the average performance of the best performing 12 percent of sources will be at or near the new source MACT level of performance. This would result in existing sources being subject to new source MACT requirements on a 5-year cycle regardless of whether those sources have undergone a change which would otherwise require compliance with that standard. EPA sees no indication that section 129(a)(5) was intended to have this inexorable downward ratcheting effect. Rather, we read the provision as

requiring EPA to consider developments in pollution control at the sources and to revise the standards based on it evaluation of the costs, non-air quality effects and energy implications of doing so.

*C. Relative to technical issues, how were the statistical methods used to develop emission limits?*

The statistical methods were used as an aid. One must remember that statistical methods attempt to estimate what could occur in the future based on what occurred in the past. Statistical methods provide an estimate of what could occur, but they are not the actual process. Actual events will determine what actually occurs. The usefulness of statistical methods is affected by the appropriateness of the model and assumptions used as well as the quality and size of the database. Statistical methods are a useful aid in making an informed decision but they alone cannot dictate a decision. Human judgment must always be applied in making the final decision.

*D. How were the final emission limits selected?*

The final emission limits were selected in a three-step process. The first step was to develop statistical estimates. The second step was to consider the statistical estimates in relation to current performance levels. The third step was for EPA to select emission limits. Relative to the first step, EPA identified an appropriate statistical model, defined reasonable assumptions, and applied the model to year 2000 compliance data for all MWC units with the relevant control technologies to estimate the peak emission rate that is estimated to occur from time to time, considering inherent variability in emission levels. Next, EPA obtained year 2000 to 2005 test data from more than a dozen MWC units. This data was compared to the statistical estimates and considered in relation to public comments. As a last step, EPA selected the emission limits for the final standards.

*E. What types of comments were received on the EPA statistical methods?*

A range of comments were received on the statistical methodology. Some commenters simply presented their own statistical methodology, which they claimed was more conventional or appropriate for the data analysis being conducted. They went on to claim their methodology would lead to more appropriate emission limits. The most common statistical methodology identified by commenters followed the approach presented by the Integrated Waste Services Association (IWSA). EPA concludes that the IWSA approach presents another generally acceptable methodology for developing emission limits. Based on public comments, EPA revised its methodology and updated the database and conducted another analysis. The revised methodology used by EPA followed that used by IWSA, but improved upon it with more accurate selection of frequency distributions on which to base the analyses. Regardless of the statistical methodology used, the results of the statistical analysis were used only as a tool to aid in selection of appropriate emission limits. That is, the estimates from the new statistical analysis were used as an aid in selecting the final emission limits. The new analysis is contained in the docket.

*F. What comments were received on the EPA database and data screening procedures?*

Although the MWC database is one of the larger databases EPA has had for standards development, a number of commenters indicated the database is inadequate because of its age. They indicated that the data from initial MACT compliance tests (year 2000) is old and should be supplemented with more current data. Some commenters suggested the more current data would address emission control performance over time including deterioration of the control system. (It could also be argued more current data could show improved performance as MWC operators became more familiar with operating an emission control system.) EPA believes the size of the year 2000 database adequate to address emission variability for developing estimates; however, EPA did collect 2000 to 2005 test data from more than a dozen MWC units to aid in reviewing emission control performance over time and to compare to the statistical estimates. Additionally, commenters identified a number of errors in the database. These were corrected by EPA. Relative to data screening as done by EPA at proposal, commenters claimed its use inappropriate and that it introduced bias to the results. At proposal, EPA had screened data to identify values that required additional investigation not because the values were high or low. Based on public comments, EPA dropped the data screening procedure in its final analysis. In some cases, using the unscreened data rather than the screened data changed estimates, but in other cases it did not. For example, the particulate matter emissions limit with or without data screening did not change. For cadmium, the change from data screening to non-screening changed the estimate by 1 micrograms/dry standard cubic meter (μg/dscm) (31 μg/dscm to 32 μg/dscm). A more significant change resulting from changing from data screening to non-screening was in the estimate for the lead emission limit.

EPA found that data received following proposal showed highly variable lead emissions. The statistical analysis data for lead used by EPA and IWSA was not as variable as data for subsequent years that were obtained after the statistical analyses were completed. Therefore, EPA discounted both the EPA and industry statistical estimates, and based the final limit on a review of the year 2000–2005 test data and public comment, selecting a higher emission limit.

In selecting the final mercury emission limit, EPA again discounted both the EPA and industry statistical estimates, and based the final limit on a review of the year 2000–2005 test data and public comment, this time selecting a lower emission limit. The EPA and IWSA analyses used year 2000 test data, and both analyses supported retention of the existing mercury limit of 80 μg/dscm. However, EPA obtained mercury test data for 68 different tests conducted on ESP-equipped MWC units in the 2000 to 2005 time period. These data showed that mercury emissions are considerably lower than suggested by the statistical analyses. To understand this performance, EPA reviewed uncontrolled mercury emissions data from a number of MWC units for the 1995 to 2005 time period. The data showed that in 1995, when the MACT standards were adopted, average uncontrolled mercury emission levels were about 250 μg/dscm, and, by 2005, the level was reduced by about 50 percent to about 125 μg/dscm. The result of application of 85 percent mercury control to these lower mercury inlet levels has resulted in much lower mercury outlet levels, as demonstrated by the test data. A 50 percent reduction in inlet mercury levels suggests an emission limit of 40 μg/dscm in the MACT standards. Public comments and test data suggested that levels less than 30 μg/dscm are being achieved. However, in consideration of the potential use of mercury CEMS and the higher mercury variability that may be observed with CEMS use, the final standards were set at 50 μg/dscm for both existing and new MWC units.

*G. What was the most important factor affecting emissions estimates?*

The emission variability factor was the most important factor affecting emissions estimates. The emission

variability factor is an emission factor that is added to the mean performance level in order to estimate the peak emissions level that will occur from time to time. For example, over an extended period (many years) particulate matter emissions from an MWC could average 15 milligrams per dry standard cubic meter (mg/dscm). Clearly, individual particulate matter tests would be above and below 15 mg/dscm. The emission variability factor addresses how much individual test values are estimated to be above the 15 mg/dscm mean value. If the variability factor were 10 mg/dscm, it would mean that it is estimated that from time to time particulate matter emissions could be as high as 25 mg/dscm (15 + 10 = 25).

*H. What emission variability factor is appropriate?*

Although most commenters and EPA used similar statistical methodology, differences were identified in assumptions used to develop emission variability factors. EPA used percentiles. The percentile addresses how often one would estimate that an emissions level may exceed a certain value (the standard). For analysis of CEMS data, such as sulfur dioxide or nitrogen oxides, where 365 tests (24-hr CEMS average) are conducted per year, EPA and commenters agreed the emission limit should be set at a level that would be expected to be exceeded only once per year at a well-operated MWC plant. Once per year translates into a 99.7 percentile level. A number of commenters suggested the use of a 99.7 percentile for development of limits using both CEMS data (sulfur dioxide and nitrogen oxide) and stack test data (cadmium, lead, mercury, particulate matter, dioxin, and hydrogen chloride). This is one area where EPA disagrees with these commenters. EPA concludes a different assumption is appropriate.

For stack test emission limits, EPA used a different and lower percentile. This is the same approach EPA used at proposal. Analysis of data to estimate emission limits to be enforced by stack test methods must be done using a different approach than where enforcement is to be based on CEMS. Historically, for stack test data, EPA used its judgment to select appropriate emission limits in consideration of emissions variability over a wide range of operating conditions, and consideration of the limitations of compliance determination by infrequent stack testing. For this rulemaking, EPA moved a step forward using statistical methods to aid in estimating appropriate emission levels for stack test compliance. The percentile for estimating emission limits enforced by infrequent stack testing must also reflect a reasonable consideration of emissions variability and compliance limitations of stack testing. Based on EPA's experience, EPA concluded a 99 percentile was appropriate to estimate achievable emission levels for emission limits enforced by stack testing. Therefore, just as done in the December 19, 2005 proposal, EPA continues to use a 99 percentile for estimating emission limits to be enforced by stack testing and 99.7 percentile for estimating emission limits to be enforced by CEMS. The commenters did not provide any persuasive information for the use of a 99.7 percentile for both CEMS and stack test compliance methods.

*I. What other significant comments were received on the proposal, and how were they addressed in the final rule?*

Other significant comment topics included CEMS data availability and increased use of CEMS, including particulate matter CEMS and other new CEMS technology. The CEMS data availability issue and increased use of CEMS technology are discussed below. Other comments are addressed in the response to comment document, which is contained in the docket.

*J. What comments were received on the proposed 95 percent CEMS data availability requirement, and how were they addressed in the final rule?*

Most commenters agreed that 95 percent CEMS data availability was achievable by a single CEMS, but indicated that legally requiring demonstration of such high availability levels on a short term basis may result in the installation of a second backup CEMS to assure compliance. Commenters indicated that from time to time it is necessary to obtain replacement parts for CEMS, sometimes from foreign suppliers, and this can quickly deteriorate data availability levels on a short term basis. In proposing the 95 percent data availability requirement, it was not EPA's intention to require installation of a second backup CEMS. To address these concerns, the final rule addresses CEMS data availability in two steps. First, a 90 percent CEMS data availability requirement is applied on a calendar quarter basis. Second, a 95 percent data availability requirement is applied on a calendar year basis. The procedure for calculation of data availability is also revised in the final rule to be hours of valid CEMS data collected divided by the hours of MWC operation. This is done on a calendar quarter basis for the 90 percent requirement and on a calendar year basis for the 95 percent requirement. The current requirement of obtaining CEMS data for 75 percent of the operating hours per day before data is counted toward the CEMS data availability requirement has been removed from the MWC regulations to assure consistency with CEMS requirements for other source categories.

*K. What comments were received on the expanded use of CEMS technology, and how were the comments addressed in the final rule?*

In the proposal, EPA allowed the optional use of particulate matter CEMS and requested comment on the optional use of particulate matter CEMS, multi-metal CEMS, hydrogen chloride CEMS, and semi-continuous dioxin monitoring. Some commenters stated the CEMS have not been validated on MWC units; that PM CEMS have not been installed in any MWC in the United States; and the use of PM CEMS on MWCs in Europe are not indicative of the appropriateness of their use in the United States, because of differences in how CEMS are used for enforcement. While PM CEMS are used in the United States on other types of sources, there could be some operational differences between these sources and MWCs that affect the performance of PM CEMS on MWCs.

In the final rule, EPA is allowing, as optional test methods, the use of particulate matter CEMS and mercury CEMS, since performance specifications are available for these CEMS. In the regulations, the owners or operators of an MWC would provide EPA a 30 day notice before starting to use the CEMS and provide a 30 day notice if they elect to discontinue the use of the CEMS. As an incentive for the optional application of CEMS in the MWC context, EPA is modifying the monitoring availability requirements. The 90 percent and 95 percent CEMS data availability requirements do not apply to particulate matter CEMS or mercury CEMS use for the first 2 years of application. For the other CEMS (multi-metal, hydrogen chloride, and semi-continuous dioxin monitoring), their optional use is allowed after their respective performance specifications are adopted by EPA. No dates for adoption are currently scheduled.

*L. Would the use of particulate matter CEMS or mercury CEMS for compliance testing require EPA to adopt alternative particulate matter and mercury emission limits?*

Theoretically, yes. The use of particulate matter CEMS or mercury

CEMS for compliance testing would theoretically require EPA to adopt alternative particulate matter and mercury emission limits. The move from once per year stack testing (where emission limits were calculated from the 99 percentile) to CEMS (99.7 percentile) suggests the emission limit should be increased if the same data averaging period is used. To address this, the final rule increases the data averaging period from 8 hours (typical particulate matter and mercury stack test period) to a 24-hr daily average if particulate matter or mercury CEMS are used. Past analysis of sulfur dioxide CEMS and nitrogen oxides CEMS data (and utility particulate matter CEMS data) indicate increasing the averaging period to a 24-hr daily average will reduce emissions variability and associated peak emissions estimates. EPA supports the optional use of particulate matter and mercury CEMS, but is fully aware that no particulate matter CEMS or mercury CEMS data from MWC units are available from domestic MWC units. EPA encourages MWC owners or operators who elect to apply particulate matter or mercury CEMS, to notify EPA as soon as data are collected to allow a determination if alternative emission limits are appropriate.

## IV. Impacts of the Final Amendments

EPA projects the final amendments will have no additional impacts to air, water, or energy since the final emission limits can be achieved using the same air pollution control technology that was used to comply with the current emission limits. Similarly, EPA expects minimal cost and no economic impact for the same reason. Existing large MWC units will continue to use their existing MACT control technology to meet the emission limits, and will not incur costs to retrofit equipment. In addition, EPA does not believe that the revised limits will result in any increase in operating or maintenance costs. The same conclusions apply to new MWC units since EPA expects that new MWC units will be equipped with the same control technology used to comply with the 1995 NSPS.

## V. Statutory and Executive Order Reviews

### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by OMB and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers the final rule a "significant regulatory action" within the meaning of the Executive Order. EPA has submitted today's action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

### *B. Paperwork Reduction Act*

The Office of Management and Budget previously approved the information collection requirements contained in the NSPS and emission guidelines for large MWC units under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, at the time the NSPS and emission guidelines were promulgated on December 19, 1995 and subsequent recertifications. The information collection request has been assigned OMB Control Number 2060–0210 (EPA ICR No. 1506.10).

The final amendments result in no changes to the information collection requirements of the NSPS or emission guidelines and will have no impact on the information collection estimate of project cost and hour burden made and approved by OMB. Therefore, the information collection requests have not been revised.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 40 CFR chapter 15.

### *C. Regulatory Flexibility Act*

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule.

For purposes of assessing the impacts of the final rule on small entities, small entity is defined as follows: (1) A small business in the regulated industry that has gross annual revenues of less than $6 million; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of the final rule on small entities, EPA has concluded that today's action will not have a significant economic impact on a substantial number of small entities. The final rule will not impose any requirements on small entities.

### *D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act (UMRA) of 1995, Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law.

Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, EPA must have developed a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year because the final rule does not require a change in the control technology applied. Thus, the final rule is not subject to the requirements of section 202 and 205 of the UMRA. In addition, EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

*E. Executive Order 13132: Federalism*

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule will not impose substantial direct compliance costs on State or local governments because the regulations will not require any change in the emission control technology currently used to comply with the 1995 NSPS and emissions guidelines, and will not preempt State law. Thus, Executive Order 13132 does not apply to the final amendments.

*F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

The final rule does not have tribal implications, as specified in Executive Order 13175. They will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. EPA is not aware of any large MWC unit owned or operated by tribal government. Thus, Executive Order 13175 does not apply to the final rule.

*G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives EPA considered.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final amendments are not subject to Executive Order 13045 because they are based on technology performance and not on health and safety risks.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use*

This rule is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Since there would be no change in energy consumption resulting from the final rule, EPA does not expect any price increase for any energy type. We also expect that there will be no impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. Therefore, EPA concludes that the final rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

*I. National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the Office of Management and Budget (OMB), with explanations when an agency does not use available and applicable voluntary consensus standards.

The MWC NSPS and emission guidelines involve technical standards. The EPA cites the following methods in the NSPS and emission guidelines: Methods 1, 3, 3A, 3B, 5, 6, 6A or 6C, 7 or 7A, 7C, 7D, or 7E, 9, 10, 10A or 10B, 19, 22, 23, 26, 26A, and 29 of 40 CFR part 60, appendix A; Performance Specifications (PS) 1, 2, 3, 4, and 11 of 40 CFR part 60, appendix B; and appendix F to 40 CFR part 60.

In previous searches and review, which have been documented and placed in the docket, EPA identified four voluntary consensus standards that have already been incorporated by reference in 40 CFR 60.17. The voluntary consensus standard ASTM D6216 (1998), "Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications," is an acceptable alternative for opacity

monitor design specifications given in EPA's PS 1 (promulgated in March 1983). As a result, EPA incorporated ASTM D6216–98 by reference into PS 1 as the design specifications for opacity monitors in August 2000. (40 CFR part 60, appendix B.) The MWC NSPS and emission guidelines also incorporate by reference into 40 CFR part 60.17 ASME QRO–1–1994, "Standard for the Qualification and Certification of Resource Recovery Facility Operators" for operator qualification and certification; ASME PTC 4.1–1964 (reaffirmed 1991), "Power Test Codes: Test Code for Steam Generating Units," for steam or feedwater flow; and ASME Interim Supplement 19.5 (6th Edition, 1971), "Instruments and Apparatus: Application, Part II of Fluid Meters," for nozzle and orifice design.

In this search and review, EPA conducted searches to identify voluntary consensus standards in addition to EPA methods in the MWC NSPS and emission guidelines. No applicable voluntary consensus standards were identified for EPA Methods 7D, 9, 10A, 19, and 22; and PS 3 and 4A. The search for emissions measurement procedures identified 27 voluntary consensus standards potentially applicable to the final amendments. One of the 27 voluntary consensus standards identified in this search was not available at the time the review was conducted for the purposes of the amendments because the standard is under development by a voluntary consensus body: ASTM WK3159 (Begun in 2003), "Practice for Quality Assurance of Instrumental Monitoring Systems." The EPA determined that two of the remaining 26 standards identified for measuring emissions subject to the NSPS and emission guidelines were practical alternatives to EPA test methods for the purposes of the final amendments. EPA determined that 24 standards were not practical alternatives to EPA test methods, therefore, EPA does not intend to adopt these standards for this purpose. The reasons for EPA's determinations are discussed in a memorandum in the docket.

EPA identified two voluntary consensus standards as alternatives to EPA test methods. ASME PTC 19–10–1981—Part 10, "Flue and Exhaust Gas Analyses" includes manual and instrumental methods of analyses for carbon monoxide, nitrogen oxides, oxygen, and sulfur dioxide. The manual methods of ASME PTC 19–10–1981—Part 10 for measuring the nitrogen oxide, oxygen, and sulfur dioxide content of exhaust gas are acceptable alternatives to Methods 3B, 6, 6A, 7, and 7C. The instrumental methods of ASME PTC 19–10–1981—Part 10 are not acceptable as a substitute for EPA Methods 3A, 6C, 7A, 7E, 10, and 10B. The instrumental methods are only general descriptions of procedures and are not true methods. Therefore, while some of the manual methods are acceptable alternatives to EPA methods, the instrumental methods are not.

The voluntary consensus standard ASTM D6784–02, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)," is an alternative to EPA Method 29 (portion for mercury only) as a method for measuring mercury. A full discussion of acceptable and unacceptable voluntary consensus standards is contained in a memorandum in the docket.

*J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This final rule is not a major rule" as defined by 5 U.S.C. 804(2). The final rule amendments to the standards of performance for new stationary sources is effective November 6, 2006. The final rule amendments to the emission guidelines for existing sources is effective on July 10, 2006.

**List of Subjects in 40 CFR Part 60**

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: April 28, 2006.

**Stephen L. Johnson,**

*Administrator.*

■ For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

## Subpart Cb—[Amended]

■ 2. Revise § 60.30b to read as follows:

**§ 60.30b Scope and delegation of authority.**

(a) This subpart contains emission guidelines and compliance schedules for the control of certain designated pollutants from certain municipal waste combustors in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines apply instead of the provisions of § 60.24(f) of subpart B of this part.

(b) The following authorities are retained by EPA:

(1) Approval of exemption claims in § 60.32b(b)(1), (d), (e), (f)(1), (i)(1);

(2) Approval of a nitrogen oxides trading program under § 60.33b(d)(2);

(3) Approval of major alternatives to test methods;

(4) Approval of major alternatives to monitoring;

(5) Waiver of recordkeeping; and

(6) Performance test and data reduction waivers under § 608(b).

■ 3. Amend § 60.31b by adding the definitions of "EPA," "Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion," and "Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable" in alphabetical order to read as follows:

**§ 60.31b Definitions.**

*EPA* means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

* * * * *

*Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion* means a combustion unit that was converted from a wet refuse-derived fuel process to a dry refuse-derived fuel process, and because of constraints in the design of the system, includes a low furnace height (less than 60 feet between the grate and the roof) and a high waste capacity-to-undergrate air zone ratio (greater than 300 tons of waste per day (tpd) fuel per each undergrate air zone).

*Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable* means a spreader stoker type combustor with a fixed floor grate design that typically fires 100 percent refuse-derived fuel but is equipped to burn 100 percent coal instead of refuse-derived fuel to fulfill 100 percent steam or energy demand.

■ 4. Amend § 60.32b by:

■ a. Revising paragraph (b)(1);
■ b. Revising paragraph (d);
■ c. Revising paragraph (e);
■ d. Revising paragraph (f)(1);
■ e. Revising paragraph (i)(1); and
■ f. Adding paragraph (n) to read as follows:

**§ 60.32b Designated facilities.**

* * * * *

(b) * * *

(1) Notifies EPA of an exemption claim,

* * * * *

(d) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(e) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) * * *

(1) Notifies EPA of an exemption claim, and

* * * * *

(i) * * *

(1) Notifies EPA of an exemption claim,

* * * * *

(n) Any affected facility meeting the applicability requirements under this section is not subject to subpart E of this part.

■ 5. Amend § 60.33b by:
■ a. Revising paragraph (a);
■ b. Revising paragraph (c);
■ c. Removing table 1 from paragraph (d) introductory text and table 2 from paragraph (d)(1)(iii); and
■ d. Revising paragraph (d)(2) and (d)(3) introductory text to read as follows:

**§ 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

(a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.

(i) Before April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 25 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved].

(iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility is 10 percent (6-minute average).

(2) For approval, a State plan shall include emission limits for cadmium at least as protective as the emission limits for cadmium specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.

(i) Before April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 40 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 35 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved].

(3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. Before April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 80 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 50 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) For approval, a State plan shall include an emission limit for lead at least as protective as the emission limit for lead specified in this paragraph. Before April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 440 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 400 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

* * * * *

(c) The emission limits for municipal waste combustor organics, expressed as total mass dioxin/furan, are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For approval, a State plan shall include an emission limit for dioxin/furan contained in the gases discharged to the atmosphere from a designated facility at least as protective as the emission limit for dioxin/furan specified in paragraphs (c)(1)(i), (c)(1)(ii), and (c)(1)(iii) of this section, as applicable.

(i) Before April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(ii) On and after April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(iii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(d) * * *

(2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to engage in trading of nitrogen oxides emission credits. A trading program must be approved by EPA before implementation.

(3) For approval, a State plan shall include emission limits for nitrogen oxides from fluidized bed combustors at least as protective as the emission limits listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section.

* * * * *

**§ 60.34b [Amended]**

■ 6. Amend § 60.34b by removing table 3 from paragraph (a) introductory text.
■ 7. Amend § 60.39b by:
■ a. Revising paragraph (b);
■ b. Revising paragraph (c) introductory text;

■ c. Revising paragraph (c)(4)(iii)(B);

■ d. Revising paragraph (e); and

■ e. Adding paragraphs (g) and (h) to read as follows:

**§ 60.39b Reporting and recordkeeping guidelines and compliance schedules.**

* * * * *

(b) Except as provided in paragraph (e) of this section, not later than December 19, 1996, each State in which a designated facility is located shall submit to EPA a plan to implement and enforce all provisions of this subpart except the revised April 28, 2009 emission limits in § 60.33b(a), (c), and (d). Not later than April 28, 2007, each State in which a designated facility is located shall submit to EPA a plan to implement and enforce all provisions of this subpart, as amended on May 10, 2006. The submittal schedule specified in this paragraph is in accordance with section 129(b)(2) of the Clean Air Act and applies instead of the schedule provided in § 60.23(a)(1) of subpart B of this part.

(c) For approval, a State plan that is submitted prior to May 10, 2006 shall include the compliance schedules specified in paragraphs (c)(1) through (c)(5) of this section.

* * * * *

(4) * * *

(iii) * * *

(B) The owner or operator of a designated facility may request that the Administrator waive the requirement specified in § 60.54b(d) of subpart Eb of this part for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the initial date of State plan approval.

* * * * *

(e) Not later than August 25, 1998, each State in which a designated facility is operating shall submit to EPA a plan to implement and enforce all provisions of this subpart specified in § 60.33b(b)(3) and (d)(3) and the emission limit in paragraph (a)(4) that applies before April 28, 2009.

* * * * *

(g) For approval, a revised State plan submitted not later than April 28, 2007 in accordance with paragraph (b) of this section, shall include compliance schedules for meeting the revised April 28, 2009 emission limits in § 60.33b(a), (c), and (d) and the revised testing provisions in § 60.38b(b).

(1) Compliance with the revised April 28, 2009 emission limits is required as expeditiously as practicable, but no later than April 28, 2009, except as provided in paragraph (g)(2) of this section.

(2) The owner or operator of an affected facility who is planning an extensive emission control system upgrade may petition the Administrator for a longer compliance schedule and must demonstrate to the satisfaction of the Administrator the need for the additional time. If approved, the schedule may exceed the schedule in paragraph (g)(1) of this section, but cannot exceed May 10, 2011.

(h) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under § 60.32b shall be in compliance with all of the guidelines, including the revised April 28, 2009 emission limits in § 60.33b(a), (b), (c), (d), and § 60.34b(a), and the revised testing provisions in § 60.38b(b), no later than May 10, 2011.

■ 8. Add tables 1, 2, and 3 to the end of subpart Cb to read as follows:

TABLE 1 TO SUBPART Cb OF PART 60.—NITROGEN OXIDES GUIDELINES FOR DESIGNATED FACILITIES

| Municipal waste combustor technology | Before April 28, 2009, nitrogen oxides emission limit (parts per million by volume) [a] | On and after April 28, 2009, nitrogen oxides emission limit (parts per million by volume) [a] |
|---|---|---|
| Mass burn waterwall | 205 | 205. |
| Mass burn rotary waterwall | 250 | 210. |
| Refuse-derived fuel combustor | 250 | 250. |
| Fluidized bed combustor | 180 | 180. |
| Mass burn refractory combustors | No limit | No limit. |

[a] Corrected to 7 percent oxygen, dry basis.

TABLE 2 TO SUBPART Cb OF PART 60.—NITROGEN OXIDES LIMITS FOR EXISTING DESIGNATED FACILITIES INCLUDED IN AN EMISSIONS AVERAGING PLAN AT A MUNICIPAL WASTE COMBUSTOR PLANT [b]

| Municipal waste combustor technology | Before April 28, 2009, nitrogen oxides emission limit (parts per million by volume) [b] | On and after April 28, 2009, nitrogen oxides emission limit (parts per million by volume) [a] |
|---|---|---|
| Mass burn waterwall | 185 | 185 |
| Mass burn rotary waterwall | 220 | 190 |
| Refuse-derived fuel combustor | 230 | 230 |
| Fluidized bed combustor | 165 | 165 |

[a] Mass burn refractory municipal waste combustors and other MWC technologies not listed above may not be included in an emissions averaging plan.

[b] Corrected to 7 percent oxygen, dry basis.

TABLE 3 TO SUBPART Cb OF PART 60.—MUNICIPAL WASTE COMBUSTOR OPERATING GUIDELINES

| Municipal waste combustor technology | Carbon monoxide emissions levels (parts per million by volume) [a] | Averaging time (hrs) [b] |
|---|---|---|
| Mass burn waterwall | 100 | 4 |

TABLE 3 TO SUBPART Cb OF PART 60.—MUNICIPAL WASTE COMBUSTOR OPERATING GUIDELINES—Continued

| Municipal waste combustor technology | Carbon monoxide emissions levels (parts per million by volume)[a] | Averaging time (hrs)[b] |
|---|---|---|
| Mass burn refractory | 100 | 4 |
| Mass burn rotary refractory | 100 | 24 |
| Mass burn rotary waterwall | 250 | 24 |
| Modular starved air | 50 | 4 |
| Modular excess air | 50 | 4 |
| Refuse-derived fuel stoker | 200 | 24 |
| Fluidized bed, mixed fuel (wood/refuse-derived fuel) | 200 | [c]24 |
| Bubbling fluidized bed combustor | 100 | 4 |
| Circulating fluidized bed combustor | 100 | 4 |
| Pulverized coal/refuse-derived fuel mixed fuel-fired combustor | 150 | 4 |
| Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor | 200 | 24 |
| Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion | 250 | [c]24 |
| Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable | 250 | [c]24 |

[a] Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average.
[b] Averaging times are 4-hour or 24-hour block averages.
[c] 24-hour block average, geometric mean.

**Subpart E—[Amended]**

■ 9. Amend § 60.50 by adding paragraphs (c), (d), and (e) to read as follows:

**§ 60.50 Applicability and designation of affected facility.**

* * * * *

(c) Any facility covered by subpart Cb, Eb, AAAA, or BBBB of this part is not covered by this subpart.

(d) Any facility covered by an EPA approved State section 111(d)/129 plan implementing subpart Cb or BBBB of this part is not covered by this subpart.

(e) Any facility covered by subpart FFF or JJJ of part 62 of this title (Federal section 111(d)/129 plan implementing subpart Cb or BBBB of this part) is not covered by this subpart.

**Subpart Eb—[Amended]**

■ 10. Amend § 60.50b by:
■ a. Revising paragraph (a);
■ b. Revising paragraph (b)(1);
■ c. Revising paragraph (e);
■ d. Revising paragraph (f);
■ e. Revising paragraph (g)(1);
■ f. Revising paragraph (j)(1); and
■ g. Revising paragraph (n).

**§ 60.50b Applicability and delegation of authority.**

(a) The affected facility to which this subpart applies is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction, modification, or reconstruction is commenced after September 20, 1994.

(b) * * *

(1) Notifies EPA of an exemption claim;

* * * * *

(e) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(g) * * *

(1) Notifies EPA of an exemption claim; and

* * * * *

(j) * * *

(1) Notifies EPA of an exemption claim;

* * * * *

(n) The following authorities are retained by the Administrator of the U.S. EPA and are not transferred to a State:

(1) Approval of exemption claims in paragraphs (b), (e), (f), (g) and (j) of this section;

(2) Enforceability under Federal law of all Federally enforceable, as defined in § 60.51b, limitations and conditions;

(3) Determination of compliance with the siting requirements as specified in § 60.57b(a);

(4) Acceptance of relationship between carbon monoxide and oxygen as part of initial and annual performance tests as specified in § 60.58b(b)(7);

(5) Approval of other monitoring systems used to obtain emissions data when data is not obtained by CEMS as specified in § 60.58b(e)(14), (h)(12), (i)(11), and (n)(14), and (p)(11);

(6) Approval of a site-specific monitoring plan for the continuous emission monitoring system specified in "60.58b(n)(13) and (o) of this section or the continuous automated sampling system specified in § 60.58b(p)(10) and (q) of this section;

(7) Approval of major alternatives to test methods;

(8) Approval of major alternatives to monitoring;

(9) Waiver of recordkeeping; and

(10) Performance test and data reduction waivers under "608(b).

* * * * *

■ 11. Amend § 60.51b by revising the definition of "Federally enforceable" and adding the definitions for "Administrator," "Continuous automated sampling system," and "EPA," in alphabetical order to read as follows:

**§ 60.51b Definitions.**

*Administrator means:*

(1) For approved and effective State Section 111(d)/129 plans, the Director of the State air pollution control agency, or employee of the State air pollution control agency that is delegated the authority to perform the specified task;

(2) For Federal Section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

* * * * *

*Continuous automated sampling system* means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on-or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

* * * * *

*EPA* means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

*Federally enforceable* means all limitations and conditions that are enforceable by EPA including the requirements of 40 CFR part 60, 40 CFR part 61, and 40 CFR part 63, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

* * * * *

■ 12. Amend § 60.52b by:
■ a. Revising paragraph (a) introductory text;
■ b. Revising paragraph (a)(1);
■ c. Revising paragraph (a)(3);
■ d. Revising paragraph (a)(4); and
■ e. Revising paragraph (a)(5) to read as follows:

**§ 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

(a) The limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(5) of this section.

(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the limits specified in paragraph (a)(1)(i) or (a)(1)(ii) of this section.

(i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 24 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 20 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

* * * * *

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain cadmium in excess of the limits specified in paragraph (a)(3)(i) or (a)(3)(ii) of this section.

(i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 20 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 10 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(4) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the affected facility any gases that contain lead in excess of the limits specified in paragraph (a)(4)(i) or (a)(4)(ii) of this section.

(i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 200 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 140 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(5) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the affected facility any gases that contain mercury in excess of the limits specified in paragraph (a)(5)(i) or (a)(5)(ii) of this section.

(i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994 and on or before December 19, 2005, the emission limit is 80 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 50 micrograms per dry standard cubic meter, or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

* * * * *

■ 13. Amend § 60.53b by:
■ a. Revising paragraph (b)(1);
■ b. Revising paragraph (b)(2);
■ c. Revising paragraph (c)(1);
■ d. Revising paragraph (c)(2);
■ e. Adding paragraph (d) to read as follows:

**§ 60.53b Standards for municipal waste combustor operating practices.**

* * * * *

(b) * * *

(1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of paragraph (b)(2) of this section are met.

(2) The municipal waste combustor unit load limit may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.

(c) * * *

(1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if

the provisions of paragraph (b)(2) of this section are met.

(2) The particulate matter control device temperature limits may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver.

(d) Paragraph (m)(2) of § 60.58b addresses treatment of activated carbon injection rate during dioxin/furan or mercury testing.

■ 14. Amend § 60.54b by revising paragraph (c)(2) and adding paragraph (c)(3) to read as follows:

**§ 60.54b Standards for municipal waste combustor operator training and certification.**

* * * * *

(c) * * *

(2) If both the certified chief facility operator and certified shift supervisor are unavailable, a provisionally certified control room operator on site at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of three criteria:

(i) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

(ii) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under § 60.59b(g)(5).

(iii) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by the Administrator. However, the owner or operator of the affected facility must take two actions:

(A) Notify the Administrator in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.

(B) Submit a status report and corrective action summary to the Administrator every four weeks following the initial notification. If the Administrator provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.

(3) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to six months before taking the ASME QRO certification exam.

* * * * *

■ 15. Amend § 60.57b by revising paragraphs (a) introductory text and (a)(6) to read as follows:

**§ 60.57b Siting requirements.**

(a) The owner or operator of an affected facility shall prepare a materials separation plan, as defined in § 60.51b, for the affected facility and its service area, and shall comply with the requirements specified in paragraphs (a)(1) through (a)(10) of this section. The initial application is defined as representing a good faith submittal as determined by EPA.

* * * * *

(6) As required under § 60.59b(a), the owner or operator shall submit to EPA a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and copies of both the preliminary and final draft materials separation plans on or before the time the facility's application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable.

* * * * *

■ 16. Amend § 60.58b by:
■ a. Revising paragraph (a)(1) introductory text;
■ b. Revising paragraph (a)(1)(iii);
■ c. Revising paragraph (b) introductory text;
■ d. Revising paragraph (b)(6)(i);
■ e. Revising paragraph (b)(7);
■ f. Revising paragraph (c) introductory text;
■ g. Revising paragraph (c)(2);
■ h. Revising paragraph (c)(3);
■ i. Revising paragraph (c)(9);
■ j. Adding paragraph (c)(10);
■ k. Revising paragraph (c)(11);
■ l. Revising paragraph (d)(1)(ii);
■ m. Revising paragraph (d)(1)(vii);
■ n. Revising paragraph (d)(2)(ii);
■ o. Revising paragraph (d)(2)(iii);
■ p. Revising paragraph (d)(2)(iv);
■ q. Revising paragraph (d)(2)(ix);
■ r. Revising paragraph (e)(7) introductory text;
■ s. Revising paragraph (e)(12) introductory text;
■ t. Revising paragraph (e)(12)(i)(A);
■ u. Revising paragraph (e)(12)(i)(B);
■ v. Revising paragraph (e)(14);
■ w. Adding paragraph (f)(8);
■ x. Revising paragraph (g)(2);
■ y. Revising paragraph (g)(5)(i);
■ z. Adding paragraph (g)(5)(ii);
■ aa. Revising paragraph (g)(5)(iii);
■ bb. Revising paragraph (g)(7);
■ cc. Revising paragraph (h)(6) introductory text;
■ dd. Revising paragraph (h)(10)(i)(B);
■ ee. Revising paragraph (h)(12);
■ ff. Revising paragraph (i)(3)(ii) introductory text;
■ gg. Revising paragraph (i)(3)(ii)(B);
■ hh. Revising paragraph (i)(8);
■ ii. Revising paragraph (i)(9);
■ jj. Revising paragraph (i)(10) introductory text;
■ kk. Revising paragraph (i)(11);
■ ll. Revising paragraph (m) introductory text;
■ mm. Revising paragraph (m)(1)(ii);
■ nn. Revising paragraph (m)(2);
■ oo. Adding paragraph (b)(8);
■ pp. Adding paragraph (d)(3);
■ qq. Adding paragraph (d)(4);
■ rr. Adding paragraph (g)(10);
■ ss. Adding paragraph (m)(4);
■ tt. Adding paragraph (n);
■ uu. Adding paragraph (o);
■ vv. Adding paragraph (p); and
■ ww. Adding paragraph (q) to read as follows:

**§ 60.58b Compliance and performance testing.**

(a) * * *

(1) Except as provided by § 60.56b, the standards under this subpart apply

at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in paragraph (a)(1)(iii) of this section. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).

* * * * *

(iii) For the purpose of compliance with the carbon monoxide emission limits in § 60.53b(a), if a loss of boiler water level control (*e.g.*, boiler waterwall tube failure) or a loss of combustion air control (*e.g.*, loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of § 60.59b(d)(7).

* * * * *

(b) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under paragraph (n) of this section) are monitored and record the output of the system and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(8) of this section.

* * * * *

(6) * * *

(i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

* * * * *

(7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to EPA as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.

(8) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of this section, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.

(c) Except as provided in paragraph (c)(10) of this section, the procedures and test methods specified in paragraphs (c)(1) through (c)(11) of this section shall be used to determine compliance with the emission limits for particulate matter and opacity under § 60.52b(a)(1) and (a)(2).

* * * * *

(2) The EPA Reference Method 3, 3A or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for gas analysis.

(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

* * * * *

(9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for particulate matter on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(10) In place of particulate matter testing with EPA Reference Method 5, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (c)(10)(i) through (c)(10)(xiv) of this section. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 is not required to complete performance testing for particulate matter as specified in paragraph (c)(9) of this section and is not required to continuously monitor opacity as specified in paragraph (c)(8) of this section.

(i) Notify the Administrator one month before starting use of the system.

(ii) Notify the Administrator one month before stopping use of the system.

(iii) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(iv) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.

(v) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(vi) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions as required under § 60.8 of subpart A of this part. Compliance with the particulate matter emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (c)(10) of this section to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.

(vii) Compliance with the particulate matter emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(viii) After April 28, 2008, at a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (c)(10)(viii)(A) and (c)(10)(viii)(B) for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(A) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(B) Each particulate matter 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(ix) The 1-hour arithmetic averages required under paragraph (c)(10)(vii) of this section shall be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(x) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (c)(10)(viii) of this section are not met.

(xi) The continuous emission monitoring system shall be operated according to Performance Specification 11 in appendix B of this part.

(xii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 11 in appendix B of this part, particulate matter and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (c)(10)(xii)(A) and (c)(10)(xii)(B) of this section.

(A) For particulate matter, EPA Reference Method 5 shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.

(xiii) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part.

(xiv) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

(11) Following the date that the initial performance test for opacity is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in paragraph (c)(6) of this section.

(d) * * *

(1) * * *

(ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for flue gas analysis.

* * * * *

(vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

* * * * *

(2) * * *

(ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 or as an alternative ASTM D6784–02 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 as an alternative ASTM D6784–02 for mercury shall be 1.7 cubic meters.

(iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 or as an alternative ASTM D6784–02 test run for mercury required under paragraph (d)(2)(iii) of this section.

* * * * *

(ix) Following the date that the initial performance test for mercury is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).

* * * * *

(3) In place of cadmium and lead testing with EPA Reference Method 29 as an alternative ASTM D6784–02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.

(4) In place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784–02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section, or paragraphs (p) and (q) of this section, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784–02 is not required to complete performance testing for mercury as specified in paragraph (d)(2)(ix) of this section.

(e) * * *

(7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year that the affected facility is combusting municipal solid waste.

* * * * *

(12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of this part. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.

(i) * * *

(A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC–19–10–1981—Part 10, shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or

as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used.

* * * * *

(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

(f) * * *

(8) In place of hydrogen chloride testing with EPA Reference Method 26 or 26A, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.

(g) * * *

(2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for flue gas analysis.

* * * * *

(5) * * *

(i) For affected facilities, performance tests shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(ii) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (g)(5)(iii) of this section, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in paragraphs (g)(5)(ii)(A) through (g)(5)(ii)(D) of this section.

(A) Follow the testing schedule established in paragraph (g)(5)(iii) of this section. For example, each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (*e.g.*, unit 1, unit 2, unit 3, as applicable).

(B) Upon meeting the requirements in paragraph (g)(5)(iii) of this section for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in paragraph (m) of this section to similarly designed and equipped units on site.

(C) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (g)(5)(iii) of this section, the dioxin/furan and mercury emissions of the subsequent unit shall not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.

(D) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site shall follow the procedures specified in § 60.59b(g)(4) for reporting.

(iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (*e.g.*, unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per calendar year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests shall thereafter be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).

* * * * *

(7) The owner or operator of an affected facility where activated carbon is used shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.

* * * * *

(10) In place of dioxin/furan sampling and testing with EPA Reference Method 23, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using EPA Method 23. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the **Federal Register** or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in paragraphs (p) and (q) of this section.

(h) * * *

(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

* * * * *

(10) * * *

(i) * * *

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used.

* * * * *

(12) When nitrogen oxides continuous emission data are not obtained because of continuous emission monitoring

system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.

(i) * * *

(3) * * *

(ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of this part, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section. For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

* * * * *

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC–19–10–1981—Part 10 (incorporated by reference, see § 60.17 of subpart A of this part), as applicable, shall be used.

* * * * *

(8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in § 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in § 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(10)(i) and (i)(10)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

* * * * *

(11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of this section even if the minimum data requirements of paragraph (i)(10) of this section are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

* * * * *

(m) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under § 60.52b(a)(5), and/or the dioxin/furan emission limits under § 60.52(b)(c), or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraphs (m)(1) through (m)(4) of this section.

(1) * * *

(ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (*e.g.*, screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section, except as specified in paragraphs (m)(2)(i) and (m)(2)(ii) of this section.

(i) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (m)(2)(ii) of this section are met.

(ii) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

* * * * *

(4) Pneumatic injection pressure or other carbon injection system operational indicator shall be used to provide additional verification of proper carbon injection system operation. The operational indicator shall provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (*e.g.*, continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (*e.g.*, screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the

indicator and operator response to the indicator alarm, shall be included in section (e)(6) of the site-specific operating manual required under § 60.54b(e) of this subpart.

(n) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with EPA Reference Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in paragraph (n)(13) and (o) of this section. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the **Federal Register** or the date of approval of the site-specific monitoring plan required in paragraphs (n)(13) and (o) of this section. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (n)(1) through (n)(13) of this section.

(1) Notify the Administrator one month before starting use of the system.

(2) Notify the Administrator one month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable) performance tests, whichever is later.

(5) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(6) The owner or operator shall conduct an initial performance test for emissions as required under § 60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure emissions and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.

(7) Compliance with the emission limits shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(8) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the **Federal Register** or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (n)(8)(i) and (n)(8)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(9) The 1-hour arithmetic averages required under paragraph (n)(7) of this section shall be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(10) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (n)(8) of this section are not met.

(11) The continuous emission monitoring system shall be operated according to the performance specifications in paragraphs (n)(11)(i) through (n)(11)(iii) of this section or the approved site-specific monitoring plan.

(i) For mercury, Performance Specification 12A in appendix B of this part.

(ii) [Reserved]

(iii) [Reserved]

(12) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in paragraph (n)(11) of this section, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (n)(12)(i) through (n)(12)(iii) of this section.

(i) For mercury, cadmium, and lead, EPA Reference Method 29 or as an alternative ASTM D6784–02 shall be used.

(ii) For hydrogen chloride, EPA Reference Method 26 or 26A shall be used.

(iii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.

(13) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in paragraph (o) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.

(14) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.

(o) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in paragraphs (o)(1) through (o)(7) of this section.

(1) Installation of the continuous emission monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of

control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

(3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(4) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (o)(4)(i) through (o)(4)(iii) of this section.

(i) A continuous emission monitoring system is out of control if either of the conditions in paragraphs (o)(4)(i)(A) or (o)(4)(ii)(B) of this section are met.

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard; or

(B) The continuous emission monitoring system fails a performance test audit (*e.g.*, cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the continuous emission monitoring system is out of control as defined in paragraph (o)(4)(i) of this section, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests that indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (*e.g.*, calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in paragraph (n)(8) of this section.

(iii) The owner or operator of a continuous emission monitoring system that is out of control as defined in paragraph (o)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in § 60.59b(g) or (h).

(5) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (o)(5)(i) and (o)(5)(ii) of this section.

(i) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (o)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (o)(7)(i)(A) through (o)(7)(i)(F) of this section.

(A) Initial and any subsequent calibration of the continuous emission monitoring system;

(B) Determination and adjustment of the calibration drift of the continuous emission monitoring system;

(C) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;

(D) Data recording, calculations, and reporting;

(E) Accuracy audit procedures, including sampling and analysis methods; and

(F) Program of corrective action for a malfunctioning continuous emission monitoring system.

(ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method in § 60.58b(n)(12) of this section. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(6) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.

(7) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.

(p) In place of periodic manual testing of dioxin/furan or mercury with EPA Reference Method 23, 29, or as an alternative ASTM D6784–02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the **Federal Register** or the date of approval of a site-specific monitoring plan required in paragraphs (p)(10) and (q) of this section. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in paragraphs (p)(1) through (p)(12) of this section.

(1) Notify the Administrator one month before starting use of the system.

(2) Notify the Administrator one month before stopping use of the system.

(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative ASTM D6784–02 (as applicable), whichever is later.

(4) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(5) The owner or operator shall conduct an initial performance test for emissions as required under § 60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous automated

sampling system specified in paragraph (p) of this section to collect integrated samples and analyze emissions for the time period specified in paragraphs (p)(5)(i) and (ii) of this section.

(i) For dioxin/furan, the continuous automated sampling system shall collect an integrated sample over each 2-week period. The collected sample shall be analyzed using Method 23.

(ii) For mercury, the continuous automated sampling system shall collect an integrated sample over each 24-hour daily period and the sample shall be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by paragraph (q) of this section.

(6) Compliance with the emission limits shall be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations shall be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).

(7) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the **Federal Register** or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(8) All valid data shall be used in calculating emission concentrations.

(9) The continuous automated sampling system shall be operated according to the final performance specification in paragraphs (p)(9)(i) or (p)(9)(ii) of this section or the approved site-specific monitoring plan.

(i) [Reserved]

(ii) [Reserved]

(10) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in paragraph (q) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.

(11) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.

(q) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in paragraphs (q)(1) through (q)(7) of this section.

(1) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.

(3) Performance evaluation procedures and acceptance criteria.

(4) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (q)(4)(i) through (q)(4)(iii) of this section.

(i) The site-specific monitoring plan shall identify criteria for determining that the continuous automated sampling system is out of control. This shall include periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in paragraph (q)(5) of this section.

(ii) When the continuous automated sampling system is out of control as defined in paragraph (q)(4)(i) of this section, the owner or operator shall take the necessary corrective action and shall repeat all necessary tests that indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in paragraph (p)(8) of this section.

(iii) The owner or operator of a continuous automated sampling system that is out of control as defined in paragraph (q)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in § 60.59b(g) or (h).

(5) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (q)(5)(i) and (q)(5)(ii) of this section.

(i) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (q)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (q)(7)(i)(A) through (q)(7)(i)(F) of this section.

(A) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;

(B) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;

(C) Procedures to assure representative (*e.g.*, proportional or isokinetic) sampling;

(D) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;

(E) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;

(F) Accuracy audit procedures for analytical methods; and

(G) Program of corrective action for a malfunctioning continuous automated sampling system.

(ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality

objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in 60.58b(p)(3), and an assessment of quality of analysis results. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(6) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.

(7) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.

■ 17. Amend § 60.59b by:
■ a. Revising paragraph (d)(2)(i) introductory text;
■ b. Revising paragraph (d)(2)(ii) introductory text;
■ c. Revising paragraph (d)(3);
■ d. Revising paragraph (d)(6) introductory text;
■ e. Revising paragraph (d)(6)(iv);
■ f. Revising paragraph (d)(6)(v);
■ g. Revising paragraph (d)(7);
■ h. Adding paragraph (d)(10);
■ i. Revising paragraph (d)(12) introductory text;
■ j. Revising paragraph (d)(14);
■ k. Revising paragraph (g) introductory text;
■ l. Revising paragraph (g)(1)(ii);
■ m. Revising paragraph (g)(1)(iv);
■ n. Revising paragraph (g)(1)(v);
■ o. Revising paragraph (g)(4);
■ p. Revising paragraph (h)(1);
■ q. Adding paragraph (d)(2)(i)(E);
■ r. Adding paragraph (d)(2)(ii)(E);
■ s. Adding paragraph (d)(2)(ii)(F);
■ t. Adding paragraph (d)(6)(vi);
■ u. Adding paragraph (d)(6)(vii);
■ v. Adding paragraph (d)(12)(iv);
■ w. Adding paragraph (g)(5);
■ x. Adding paragraph (m);
■ y. Adding paragraph (n); and
■ z. Adding paragraph (o) to read as follows:

**§ 60.59b Reporting and recordkeeping requirements.**

* * * * *

(d) * * *

(2) * * *

(i) The measurements specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(F) of this section shall be recorded and be available for submittal to the Administrator or review on site by an EPA or State inspector.

* * * * *

(E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under § 60.58b(n).

(ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an EPA or State inspector.

* * * * *

(E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under § 60.58b(n).

(F) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under § 60.586(p).

(3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section, or the opacity levels recorded under paragraph (d)(2)(i)(A) of this section are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.

* * * * *

(6) Identification of the calendar dates and times (hours) for which valid hourly data specified in paragraphs (d)(6)(i) through (d)(6)(vi) of this section have not been obtained, or continuous automated sampling systems were not operated as specified in paragraph (d)(6)(vii) of this section, including reasons for not obtaining the data and a description of corrective actions taken.

* * * * *

(iv) Municipal waste combustor unit load data;

(v) Particulate matter control device temperature data; and

(vi) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.

(vii) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under "60.58b(p) and (q), dates and times when the sampling systems were not operating or were not collecting a valid sample.

(7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data (*i.e.*, carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

* * * * *

(10) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (10)(i) through (iii) of this section.

(i) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods), as required under appendix F of this part, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.

(ii) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and

periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by § 60.58b(o)(5).

(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by § 60.58b(q)(5).

* * * * *

(12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iv) of this section.

* * * * *

(iv) Records of when a certified operator is temporarily off site. Include two main items:

(A) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.

(B) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:

(*1*) Time of day that all certified persons are off site.

(*2*) The conditions that cause those people to be off site.

(*3*) The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.

(*4*) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.

* * * * *

(14) For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for mercury emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken. For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.

* * * * *

(g) Following the first year of municipal waste combustor operation, the owner or operator of an affected facility shall submit an annual report that includes the information specified in paragraphs (g)(1) through (g)(5) of this section, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

(1) * * *

(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.

* * * * *

(iv) Periods when valid data were not obtained as described in paragraphs (g)(1)(iv)(A) through (g)(1)(iv)(C) of this section.

(A) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.

(B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data recorded under paragraph (d)(6) of this section. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.

(C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded under paragraph (d)(6)(vii) of this section. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.

(v) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described in paragraphs (g)(1)(v)(A) through (g)(1)(v)(C) of this section.

(A) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.

(B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.

(C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.

* * * * *

(4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in § 60.58b(g)(5)(iii) of this section during the following calendar year and notification of intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as

established in § 60.58b(m) to similarly designed and equipped units on site.

(5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.

(h) * * *

(1) The semiannual report shall include information recorded under paragraph (d)(3) of this section for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

* * * * *

(m) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.

(n) *Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in § 60.58b(n), shall maintain the records in paragraphs (n)(1) through (n)(10) of this section and report the information in paragraphs (n)(11) through (n)(12) of this section, relevant to the continuous emission monitoring system:

(1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods);

(2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks;

(3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in § 60.58b(o)(4);

(4) The specific identification (*i.e.*, the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;

(5) The specific identification (*i.e.*, the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(6) The nature and cause of any malfunction (if known);

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;

(8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control;

(9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under § 60.58b(o);

(10) When more than one continuous emission monitoring system is used to measure the emissions from one affected source (*e.g.*, multiple breechings, multiple outlets), the owner or operator shall report the results as required for each continuous emission monitoring system.

(11) Submit to EPA for approval, the site-specific monitoring plan required by § 60.58b(n)(13) and § 60.58b(o), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by § 60.58(b)(o)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous (*i.e.*, superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(12) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual reports required in paragraphs (g) or (h) of this section.

(o) *Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in § 60.58b(p), shall maintain the records in paragraphs (o)(1) through (o)(10) of this section and report the information in (o)(11) and (o)(12) of this section, relevant to the continuous automated sampling system:

(1) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);

(2) The date and time identifying each period during which the continuous automated sampling system was inoperative;

(3) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in § 60.58b(q)(4);

(4) The specific identification (*i.e.*, the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;

(5) The specific identification (*i.e.*, the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(6) The nature and cause of any malfunction (if known);

(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;

(8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;

(9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under § 60.58b(q);

(10) When more than one continuous automated sampling system is used to measure the emissions from one affected source (*e.g.*, multiple breechings, multiple outlets), the owner or operator

shall report the results as required for each system.

(11) Submit to EPA for approval, the site-specific monitoring plan required by § 60.58b(p)(11) and § 60.58b(q) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by § 60.58(b)(q)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous (*i.e.*, superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(12) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in paragraphs (g) or (h) of this section.

[FR Doc. 06–4197 Filed 5–9–06; 8:45 am]

BILLING CODE 6560–50–P

9. Answers to the Motion of the United States Postal Service for Partial Waiver or Suspension of Commission Rules Specifying Materials to be filed in Support of its Request for Changes in Postal Rates and Classifications, filed May 3, 2006, are due no later than June 5, 2006.

10. The Secretary shall cause this Notice and Order to be published in the **Federal Register.**

**Steven W. Williams,**

*Secretary.*

[FR Doc. E6–7218 Filed 5–10–06; 8:45 am]

BILLING CODE 7710–FW–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 52 and 81

**[EPA R03–OAR–2004–WV–0001; FRL–8168–7]**

### Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Withdrawal of Proposed Rule

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Withdrawal of proposed rule.

**SUMMARY:** Due to an adverse comment, EPA is withdrawing its Notice of Proposed Rulemaking to redesignate the City of Weirton PM–10 nonattainment area to attainment and approval of the maintenance plan published on October 27, 2004 (69 FR 62637). EPA is also withdrawing the correcting amendment to the NPR published on November 9, 2004 (69 FR 64860).

**DATES:** The proposed rule is withdrawn as of May 11, 2006.

**FOR FURTHER INFORMATION CONTACT:** Linda Miller, (215) 814–2068, or by e-mail at *miller.linda@epa.gov.*

**SUPPLEMENTARY INFORMATION:** Elsewhere in today's **Federal Register,** a separate proposed rulemaking entitled *"Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Redesignation of the City of Weirton PM–10 Nonattainment Area to Attainment and Approval of the Limited Maintenance Plan,"* provides more detailed legal and factual basis for supporting our decision to withdraw the NPR and its related correcting amendment. Our proposed action to approve the State of West Virginia request to redesignate the Weirton area to attainment and approve the associated maintenance plan is also found in the NPR in today's **Federal Register.**

Separate dockets have been prepared for the new proposal and this notice to withdraw the October 27, 2004 Weirton notice of proposed rulemaking.

**List of Subjects**

*40 CFR Part 52*

Environmental protection, Air pollution control, Incorporation by reference, Particulate matter, Reporting and recordkeeping requirements.

*40 CFR Part 81*

Environmental protection, Air pollution control, National Parks, Wilderness areas.

Dated: April 28, 2006.

**Judith Katz,**

*Acting Regional Administrator, Region III.*

[FR Doc. E6–7215 Filed 5–10–06; 8:45 am]

BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 52 and 81

**[EPA–R03–OAR–2005–0480; FRL–8168–6]**

### Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Redesignation of the City of Weirton PM–10 Nonattainment Area to Attainment and Approval of the Maintenance Plan

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** On May 24, 2004, the State of West Virginia submitted a request that EPA redesignate the Weirton nonattainment area (Weirton Area) to attainment for the national ambient air quality standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM–10), and concurrently requested approval of a limited maintenance plan (LMP) as a revision to the West Virginia State Implementation Plan (SIP). In this action, the EPA proposes to approve the LMP for the Weirton Area in West Virginia and grant the State's request to redesignate the area from nonattainment to attainment. EPA's proposed approval is based on its determination that the area has met the criteria for redesignation for attainment specified in the Clean Air Act (CAA). EPA is also proposing to determine that, because the Weirton Area has continued to attain the PM–10 NAAQS, certain attainment demonstration requirements, along with other related requirements of the CAA, are not applicable to the Weirton Area.

**DATES:** Written comments must be received on or before June 12, 2006.

**ADDRESSES:** Submit your comments, identified by Docket ID Number EPA–R03–OAR–2005–0480 by one of the following methods:

A. *http://www.regulations.gov.* Follow the online instructions for submitting comments.

B. E-mail: *Morris.makeba@epa.gov.*

C. Mail: EPA–R03–OAR–2005–0480, Makeba Morris, Chief, Air Quality Planning and Analysis Branch, Mailcode 3AP21, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.

D. Hand Delivery: At the previously-listed EPA Region III address. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–R03–OAR–2005–0480. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

*Docket:* All documents in the electronic docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute.

Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. Copies of the State submittal are available at West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, WV 25304.

**FOR FURTHER INFORMATION CONTACT:** Linda Miller, (215) 814–2068, or by e-mail at *miller.linda@epa.gov.*

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever "we", "us", or "our" are used, we mean EPA.

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## I. Background

### *A. What NAAQS Are Considered in Today's Rulemaking?*

Particulate matter with an aerodynamic diameter less than or equal to a nominal ten microns (PM–10) is the pollutant subject to this action. The NAAQS are safety thresholds for certain ambient air pollutants set to protect public health and welfare. PM–10 is among the ambient air pollutants for which we have established such a health-based standard. PM–10 causes adverse health effects by penetrating deep in the lung, aggravating the cardiopulmonary system. Children, the elderly, and people with asthma and heart conditions are the most vulnerable. On July 1, 1987 (52 FR 24634) we revised the NAAQS for particulate matter with an indicator that includes those particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers. See 40 CFR 50.6. The annual primary PM–10 standard is 50 $\mu/m^3$ as an annual arithmetic mean. The 24-hour primary PM–10 standard is 150 $\mu g/m^3$ with no more than one expected exceedance per year. The secondary PM–10 standards, promulgated to protect against adverse welfare effects, are identical to the primary standards.

### *B. What Is a State Implementation Plan (SIP)?*

The Act requires states to attain and maintain ambient air quality equal to or better than the NAAQS. Section 107(d)(1)(A)(I) of the Act defines nonattainment area as any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for that pollutant.

A state's strategy for attaining and maintaining the NAAQS are outlined in the state implementation plan (SIP). The SIP is a planning document that, when implemented, is designed to ensure the achievement of the NAAQS by the applicable attainment date. The Act requires that states make SIP revisions periodically, as necessary, to provide continued compliance with the standards.

SIPs include, among other things, the following: (1) A current, accurate and comprehensive inventory of emission sources; (2) statutes and regulations adopted by the State Legislature and executive agencies; (3) air quality analyses that include demonstrations that adequate controls are in place to meet the NAAQS; and (4) contingency measures to be undertaken if an area fails to attain the standard or make reasonable progress toward attainment by the required date.

A state must make the SIP and subsequent revisions available for public review and comment through a public hearing, it must be adopted by the State, and submitted to EPA by the Governor or the Governor's designee. EPA takes action to approve the SIP, thus rendering the rules and regulations federally enforceable. The approved SIP is the state's commitment to take actions that will reduce or eliminate air quality problems. Any subsequent revisions to the SIP must go through the formal SIP revision process specified in the Act.

### *C. What are the Requirements for Redesignating a Nonattainment Area to Attainment?*

Nonattainment areas can be redesignated to attainment after the area has measured air quality data showing it has attained the NAAQS and when certain additional requirements are met. Section 107(d)(3)(E) of the Act provides the criteria for redesignation. These criteria are further clarified in the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (57 FR 13498, April 16, 1992, as supplemented 57 FR 18070, April 28, 1992) (the General Preamble), and in a guidance memorandum from John Calcagni, Director, Air Quality Management Division, EPA Office of Air Quality Planning and Standards dated September 4, 1992, "Procedures for Processing Requests to Redesignate Areas to Attainment, (Calcagni memo)." The criteria for redesignation are:

(1) A determination that the area has attained the applicable NAAQS;

(2) Full approval of the applicable SIP for the area under section 110(k) of the Act;

(3) The state containing the area has met all requirements applicable to the area under section 110 and part D of the Act;

(4) A determination that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan, applicable Federal air pollution control regulations, and other permanent and enforceable reductions; and

(5) Full approval of a maintenance plan for the area as meeting the requirements of section 175A of the Act.

### *D. What is the Background of the SIP for the Weirton Area?*

The Weirton Area, consisting of Hancock County and part of Brooke County, West Virginia, was designated

by EPA as a moderate PM–10 nonattainment area on December 21, 1993 (58 FR 67334).

On May 16, 2001 (66 FR 27034), EPA promulgated a final rule entitled, "Determination of Attainment of the NAAQS for PM–10 in the Weirton, West Virginia Nonattainment Area" finding that the Weirton PM–10 nonattainment had attained the NAAQS for PM–10 by its applicable December 31, 2000 attainment date.

In order to be redesignated from nonattainment to attainment, West Virginia requested that EPA apply its clean data policy to the Weirton Area in a letter dated October 14, 2003. West Virginia submitted a request to redesignate the Weirton Area to attainment for PM–10 and a SIP submittal for the related maintenance plan on May 24, 2004.

EPA published a direct final rule (DFR) and notice of proposed rulemaking (NPR) in which we determined that certain attainment demonstration requirements, along with other related requirements of the Act, are not applicable to the Weirton Area. In the same October 27, 2004 DFR and NPR, EPA also approved the request from the State of West Virginia to redesignate the Weirton Area from nonattainment to attainment of the NAAQS for PM–10, and to approve the 10-year maintenance plan for the area submitted by the WVDEP as a revision to the West Virginia SIP. (October 27, 2004, 69 FR 62591 and 69 FR 62637).

EPA published a correcting amendment to the DFR and NPR on November 9, 2004 (69 FR 64860) to include additional explanation of why motor vehicle emissions do not contribute significantly to any nonattainment with the PM–10 NAAQS in the Weirton Area.

EPA received adverse comments on the October 27, 2004 DFR/NPR from one commenter. Therefore, EPA withdrew the DFR on December 20, 2004 (69 FR 75847). The withdrawal of the DFR converted EPA's action to a proposal based on the October 27, 2004 NPR. In a separate rulemaking in today's **Federal Register**, EPA is withdrawing the October, 27 2004 NPR and the November 9, 2004 amendment thereto, and issuing this current proposal. Because we are withdrawing the earlier action, we will not respond to the comments received on the withdrawn DFR and NPR. Any person wishing to comment on this current proposal must submit comments pursuant to the instructions given in this notice of proposed rulemaking.

*E. What are the Air Quality Characteristics of the Weirton Area?*

The primary years used by EPA for the purposes of establishing PM–10 designations and classifications were 1987 to 1989. For this base year period, the Weirton Area 24-hour average PM–10 design value was 198 μg/m³. This value exceeded the NAAQS of 150 μg/m³. The Weirton Area has never exceeded the annual average standard of 50 μg/m³. As provided in the WV SIP submittal, for the 2000 to 2002 period, the comparable 24-hour average design value is 112 μg/m³ and the PM–10 annual average design value is 32 μg/m. Both values meet the NAAQS. Based on the certified ambient air quality data through the close of calendar year 2005, EPA proposes to determine that the area continues to attain the PM–10 NAAQS. Furthermore, there have been no recorded exceedances of the 24-hour PM–10 standard or the annual PM–10 standard from 1997 through the end of 2005 in the Weirton Area, and the highest annual value in the Weirton area for the years 2003–2005 is 29 μg/m³. See also the discussion in Section II.A.1. and the technical support document (TSD) accompanying this rulemaking.

**II. Review of the West Virginia Submittal Addressing the Requirements for Redesignation**

*A. Does the Submittal Meet the Criteria for Redesignation?*

1. Has the State demonstrated that the Weirton Area has attained the applicable NAAQS?

States must demonstrate that an area has attained the PM–10 NAAQS through analysis of ambient air quality data from an ambient air monitoring network representing peak PM–10 concentrations. The data should be stored in the EPA Air Quality System (AQS) database. The 24-hour PM–10 NAAQS is 150 μg/m³. An area has attained the 24-hour standard when the average number of expected exceedences per year is less than or equal to one, when averaged over a three-year period (40 CFR 50.6). To make this determination, three consecutive years of complete ambient air quality data must be collected in accordance with Federal requirements (40 CFR part 58, including appendices). The annual PM–10 NAAQS is 50 μg/m³. To determine attainment, the standard is compared to the expected annual mean, which is the average of the weighted annual mean for three consecutive years. More detailed monitoring data is available in the TSD.

EPA previously determined in "A Determination of Attainment of the NAAQS for PM–10 in the Weirton, West Virginia Nonattainment Area" on May 16, 2001 (66 FR 27034) that the area had attained the PM–10 NAAQS. As previously stated, the most recent air quality monitoring continues to support this determination. Thus, EPA proposes to determine that the Weirton Area has satisfied the criterion of section 107(d)(3)(E)(i) that the area has attained the PM–10 NAAQS.

2. Does the Weirton Area have a Fully Approved SIP under section 110(k) of the Act that meets all requirements applicable under section 110 and Part D for Purposes of Redesignation?

In order to qualify for redesignation, the SIP must satisfy all requirements that apply to the area for purposes of redesignation. EPA interprets the Act to require state adoption and EPA approval of the requirements applicable for purposes of redesignation under section 110 and part D before EPA may approve a redesignation request. Thus in order to qualify for redesignation, the SIP for the area must be fully approved under section 110(k) with respect to all requirements that apply to the area for purposes of redesignation.

As we explain more fully in later sections of this action, EPA has determined that West Virginia has met all SIP requirements applicable for purposes of redesignation under section 110 of the CAA and has also determined that the West Virginia SIP meets requirements applicable for purposes of redesignation under Part D, Title I of the CAA. EPA has analyzed the SIP codified at 40 CFR part 52, subpart XX, and determined that it is consistent with the requirements of section 110 applicable for purposes of redesignation.

The air quality planning requirements for moderate PM–10 nonattainment areas under part D of Title I of the CAA are set out in subparts 1 and 4. Subpart 1 of part D, found in sections 172–176 of the CAA, sets forth the basic requirements applicable to all nonattainment areas. Subpart 4 of part D, found in section 189 of the CAA, establishes additional specific requirements for PM–10 areas depending upon the area's nonattainment classification. For purposes of evaluating the redesignation request, EPA is proposing to determine that these applicable requirements have been met for the reasons discussed in later sections of this notice.

The Part D provisions that the Weirton Area must evaluate prior to redesignation as attainment include an emissions inventory, conformity, a

permit program for new and modified stationary sources (called new source review or NSR), Reasonably Available Control Measure (RACM) requirements contained in sections 172 and 189 of the Act), a demonstration of reasonable further progress (RFP) toward attainment, an attainment demonstration, and contingency measures. We address how the Weirton Area has met the RACM, RFP, attainment demonstration and contingency measure requirements in the next section of this notice (Clean Data Policy).

With respect to the emissions inventory requirement, the Calcagni memo notes that the requirements for an emission inventory will be satisfied by the inventory requirements of the maintenance plan. An attainment year emissions inventory for the Weirton Area has been included in the maintenance plan, and thus this requirement has been satisfied.

With respect to the conformity requirement, section 176(c) of the CAA requires states to establish criteria and procedures to ensure the Federally supported or funded projects "conform" to the air quality planning goals in the applicable SIP. The requirement to determine conformity applies to transportation plans, programs, and projects developed, funded or approved under Title 23 U.S.C and the Federal Transit Act ("transportation conformity") as well as to other Federally supported or funded projects ("general conformity"). State conformity revisions must be consistent with Federal conformity regulations relating to consultation, enforcement and enforceability that the CAA required the EPA to promulgate.

EPA believes it is reasonable to interpret the conformity SIP requirements as not applying for purposes of evaluating a redesignation request under section 107(d) because state conformity rules are still required after redesignation and federal conformity rules apply where state rules have not been approved. See *Wall* v. *EPA*, 265F 3d 426 (6th Cir. 2001), upholding this interpretation. See, also, 60 FR 62748 (December 7, 1995).

With respect to the NSR program requirement, EPA has determined that areas being redesignated need not have an approved NSR program prior to redesignation, provided that the area demonstrates maintenance of the standard without Part D NSR in effect. The rationale for this view is described in a memorandum for Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled "Part D New Source Review Requirements of Areas Requesting Redesignation to Attainment." The State has demonstrated that the area will be able to maintain the standard without Part D NSR in effect, and therefore the State need not have a fully approved Part D NSR program prior to approval of the redesignation request. The State's Prevention of Significant Deterioration (PSD) program will become effective in the area upon redesignation to attainment. Detroit, MI (60 FR 12467–12468, March 7, 1995); Cleveland-Akron-Lorrain, OH (61 FR 20458, 20469–20470, May 7, 1996); Louisville, KY (66 FR 53665, October 23 2001); Grand Rapids, MI (61 FR 31834–31837, June 21, 1996).

3. Clean Data Policy

In some designated nonattainment areas, monitored data demonstrates that the NAAQS has already been achieved. Based on its interpretation of the Act, EPA has determined that certain requirements of part D, subpart 1 and 2 of the Act do not apply and therefore do not require certain submissions for an area that has attained the NAAQS. These include reasonable further progress (RFP) requirements, attainment demonstrations and contingency measures, because these provisions have the purpose of helping achieve attainment of the NAAQS.

The so-called Clean Data Policy is the subject of two EPA memoranda setting forth our interpretation of the provisions of the Act as they apply to areas that have attained the relevant NAAQS. EPA also finalized the statutory interpretation set forth in the policy in a final rule, 40 CFR 51.918, as part of its Final Rule to Implement the 8-hour Ozone National Ambient Air Quality Standard—Phase 2 (Phase 2 Final Rule). See discussion in the preamble to the rule at 70 FR 71645–71646 (November 29, 2005). EPA believes that the legal bases set forth in detail in our Phase 2 Final rule, our May 10, 1995 memorandum from John S. Seitz, entitled "Reasonable Further Progress, Attainment Demonstration, and Related Requirements for Ozone Nonattainment Areas Meeting the Ozone National Ambient Air Quality Standard" (Seitz memo), and our December 14, 2004 memorandum from Stephen D. Page entitled "Clean Data Policy for the Fine Particle National Ambient Air Quality Standards" (Page memo), are equally pertinent to the interpretation of provisions of subparts 1 and 4 applicable to PM–10. EPA's interpretation of how the provisions of the Act apply to areas with "clean data" is not logically limited to ozone and PM–2.5, because the rationale is not dependent upon the type of pollutant. Our interpretation that an area that is attaining the standard is relieved of obligations to demonstrate reasonable further progress (RFP) and to provide an attainment demonstration and contingency measures pursuant to part D of the CAA, pertains whether the standard is PM–10, ozone or PM–2.5.

The reasons for relieving an area that has attained the relevant standard of certain part D, subpart 1 and 2 (sections 171 and 172) obligations, applies equally as well to part D, subpart 4, which contains specific attainment demonstration and RFP provisions for PM–10 nonattainment areas. As we have explained in the Phase 2 Final Rule and our ozone and PM–2.5 clean data memoranda, EPA believes it is reasonable to interpret provisions regarding RFP and attainment demonstrations, along with related requirements, so as not to require SIP submissions if an area subject to those requirements is already attaining the NAAQS (i.e., attainment of the NAAQS is demonstrated with three consecutive years of complete, quality-assured air quality monitoring data). Three U.S. Circuit Courts of Appeals have upheld EPA rulemakings applying its interpretation of subparts 1 and 2 with respect to ozone. *Sierra Club* v. *EPA*, 99F.3d 1551 (10th Cir. 1996); *Sierra Club* v. *EPA*, 375 F. 3d 537 (7th Cir. 2004); *Our Children's Earth Foundation* v. *EPA*, N. 04–73032 (9th Cir. June 28, 2005) (memorandum opinion). It has been EPA's longstanding interpretation that the general provisions of part D, subpart 1 of the Act (sections 171 and 172) do not require the submission of SIP revisions concerning RFP for areas already attaining the ozone NAAQS. In the General Preamble, we stated:

> [R]equirements for RFP will not apply in evaluating a request for redesignation to attainment, since, at a minimum, the air quality data for the area must show that the area has already attained. A showing that the State will make RFP toward attainment will, therefore, have no meaning at that point. 57 FR at 13564.

EPA believes the same reasoning applies to the PM–10 provisions of part D, subpart 4.

With respect to RFP, section 171(1) states that, for purposes of part D of title I, RFP "means such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable NAAQS by the applicable date." Thus, whether dealing with the general RFP requirement of section 172(c)(2), the ozone-specific RFP requirements of

sections 182(b) and (c), or the specific RFP requirements for PM–10 areas of part D, subpart 4, section 189(c)(1), the stated purpose of RFP is to ensure attainment by the applicable attainment date. Section 189(c)(1) states that:

> Plan revisions demonstrating attainment submitted to the Administrator for approval under this subpart shall contain quantitative milestones which are to be achieved every 3 years until the area is redesignated attainment and which demonstrate reasonable further progress, as defined in section 7501(l) of this title, toward attainment by the applicable date.

Although this section states that revisions shall contain milestones which are to be achieved until the area is redesignated to attainment, such milestones are designed to show reasonable further progress "toward attainment by the applicable date", as defined by section 171. Thus it is clear that once the area has attained the standard, no further milestones are necessary or meaningful. This interpretation is supported by language in section 189(c)(3), which mandates that a state that fails to achieve a milestone must submit a plan that assures that the state achieve the next milestone or attain the NAAQS if there is no next milestone. Section 189(c)(3) assumes that the requirement to submit and achieve milestones does not continue after attainment of the NAAQS.

If an area has in fact attained the standard, the stated purpose of the RFP requirement will have already been fulfilled.[1] EPA took this position with respect to the general RFP requirement of section 172(c)(2) in the April 16, 1992 General Preamble and also in the May 10, 1995 memorandum with respect to the requirements of sections 182(a)(b) and (c). We are extending that interpretation to the specific provisions of part D, subpart 4. In the General Preamble, we stated, in the context of a discussion of the requirements applicable to the evaluation of requests to redesignate nonattainment areas to attainment, that the "requirements for RFP will not apply in evaluating a request for redesignation to attainment since, at a minimum, the air quality data for the area must show that the area has already attained. Showing that the State will make RFP towards attainment will, therefore, have no meaning at that point." (57 FR at 13564). See also Calcagni memo, p.6.

With respect to the attainment demonstration requirements of section 189(a)(1)(B) an analogous rationale leads to the same result. Section 189(a)(1)(B) requires that the plan provide for "a demonstration (including air quality modeling) that the [SIP] will provide for attainment by the applicable attainment date.* * *" As with the RFP requirements, if an area is already monitoring attainment of the standard, EPA believes there is no need for an area to make a further submission containing additional measures to achieve attainment. This is also consistent with the interpretation of the section 172(c) requirements provided by EPA in the General Preamble, the Page memo and of the section 182(b) and (c) requirements set forth in the Seitz memo. As EPA stated in the General Preamble, no other measures to provide for attainment would be needed by areas seeking redesignation to attainment since "attainment will have been reached." (57 FR at 13564).

Other SIP submission requirements are linked with these attainment demonstration and RFP requirements, and similar reasoning applies to them. These requirements include the contingency measure requirements of sections 172(c)(9) and 182(c)(9). We have interpreted the contingency measure requirements of sections 172(c)(9) and 182(c)(9) as no longer applying when an area has attained the standard because those "contingency measures are directed at ensuring RFP and attainment by the applicable date." (57 FR at 13564); Seitz memo, pp. 5–6.

Both sections 172(c) and 189(a)(1)(c) require "provisions to assure that reasonable available control measures" (i.e, RACM) are implemented in a nonattainment area. However, the Weirton Area was able to attain the PM–10 NAAQS without any additional measures being implemented. The General Preamble, 57 FR 13560 (April 16, 1992) states that EPA interprets section 172(c)(1) so that RACM requirements are a "component" of an area's attainment demonstration. Thus, for the same reason the attainment demonstration no longer applies by its own terms, the requirement for RACM no longer applies. EPA has consistently interpreted this provision to require only implementation of potential RACM measures that could contribute to reasonable further progress or to attainment. General Preamble, 57 FR at 13498. Thus, where an area is already attaining the standard, no additional RACM measures are required.[2] EPA is interpreting section 189(a)(1)(c) consistent with its interpretation of section 172(c)(1). Therefore, there is no requirement for the West Virginia SIP to contain RACM for the Weirton Area in order for EPA to redesignate that area as attainment for the PM–10 NAAQS.

Here, as in both our Phase 2 final rule and ozone and PM–2.5 clean data memoranda, we emphasize that the suspension of a requirement to submit SIP revisions concerning these RFP, attainment demonstration, RACM, and other related requirements exists only for as long as a nonattainment area continues to monitor attainment of the standard. If such an area experiences a violation of the NAAQS, the basis for the requirements being suspended would no longer exist. Therefore, the area would again be subject to a requirement to submit the pertinent SIP revision or revisions and would need to address those requirements. Thus, a determination that an area need not submit one of the SIP submittals amounts to no more than a suspension of the requirement for so long as the area continues to attain the standard. However, once EPA ultimately redesignates the area to attainment, the area will be entirely relieved of these requirements to the extent the maintenance plan for the area does not rely on them.

Therefore, we believe that, for the reasons set forth here and established in our prior "clean data" memoranda and rulemakings, a PM–10 nonattainment area that has "clean data," should be relieved of the part D, subpart 4 obligations to provide an attainment demonstration pursuant to section 189(a)(1)(B) the RACM provisions of 189(a)(1)(c), and the RFP provisions established by section 189(c)(1) of the Act, as well as the aforementioned attainment demonstration, RACM, RFP and contingency measure provisions of

[1] Thus we believe that it is a distinction without a difference that section 189(c)(1) speaks of the RFP requirement as one to be achieved until an area is "redesignated as attainment", as opposed to section 172(c)(2), which is silent on the period to which the requirement pertains, or the ozone nonattainment area RFP requirements in sections 182(b)(1) or 182(c)(2), which refer to the RFP requirements as applying until the "attainment date", since, section 189(c)(1) defines RFP by reference to section 171(l) of the Act. Reference to 171(l) clarifies that, as with the general RFP requirements in section 172(c)(2) and the ozone-specific requirements of section 182(b)(1) and 182(c)(2), the PM-specific requirements may only be required "for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." 42 U.S.C. section 7501(1). As discussed in the text of this rulemaking, EPA interprets the RFP requirements, in light of the definition of RFP in section 171(l), and incorporated in section 189(c)(1), to be a requirement that no longer applies once the standard has been attained.

[2] The EPA's interpretation that the statute only requires implementaion of RACM measures that would advance attainment was upheld by the United States Court of Appeals for the Fifth Circuit (Sierra Club v. EPA, 314 F.3d 735, 743–745 (5th Cir. 2002)), and by the United States Court of Appeals for the D.C. Circuit (Sierra Club v. EPA, 294 F3d 155, 162–163 (D.C. Cir. 2002)).

part D, subpart 1 contained in section 172 of the Act.[3]

Should EPA at some future time determine that an area that had clean data, but which has not yet been redesignated as attainment for a NAAQS has violated the relevant standard, the area would again be required to submit the pertinent requirements under the SIP for the area. Attainment determinations under the policy do not shield an area from other required actions, such as provisions to address pollution transport.

As set forth, above, EPA proposes to find that because the Weirton Area has continued to attain the NAAQS the requirement of an attainment demonstration, reasonable further progress, reasonably available control measures and contingency measures no longer apply.

Thus, EPA has determined that all provisions of CAA section 110 and part D applicable to the Weirton Area for purposes of redesignation have been approved into the West Virginia SIP.

4. Has the State demonstrated that the air quality improvement is due to permanent and enforceable reductions?

The State must be able to reasonably attribute the improvement in air quality to permanent and enforceable emission reductions. In making this showing, the State must demonstrate that air quality improvements are the result of actual enforceable emission reductions. The control measures for the area, which were responsible for bringing the area into attainment, are contained in a Consent Order (CO) between the State of West Virginia and the Weirton Steel Corporation. The control measures and emission limits established in the CO were made permanent and enforceable when EPA approved them into the West Virginia SIP on May 5, 2004 (69 FR 24986). These control measures resulted in a reduction of 1345.5 tons per year of allowable PM–10 emissions and a reduction of 886 tons per year of actual PM–10 emissions. EPA approved these measures as RACT in the West Virginia SIP on May 4, 2004 (69 FR 24986).

[3] In prior rulemakings involving the Clean Data Policy and PM–10, EPA has applied criteria in addition to that of attainment of the standard. See *e.g.*, 67 FR 43020 (June 26, 2002). EPA does not believe that those additional criteria are required by statute or are necessary for application of the policy for PM–10 areas, and does not employ them in applying the policy to ozone and $PM_{2.5}$ areas. EPA intends to make its application of the policy consistent for ozone, PM–10, and $PM_{2.5}$, and does not intend to require an area to meet additional criteria for PM–10.

## III. Review of the Limited Maintenance Plan

### *A. What is a Maintenance Plan?*

As discussed in section II of this action, to be redesignated to attainment, the Weirton Area is required to have a fully approved maintenance plan under section 175A of the CAA. A maintenance plan should identify the level of air emissions from cars, industry and other sources which is sufficient to attain the NAAQS. The State must commit to re-evaluate the maintenance plan. The plan must also show that the area will maintain clean air for at least 10 years after redesignation. Additionally, the plan must include a list of contingency measures to be implemented should the NAAQS be violated. The requirements for the contingency measures is found in paragraph (d) of CAA section 175A.

### *B. What is the LMP Option for PM–10 Nonattainment Areas Seeking Redesignation to Attainment*

On August 9, 2001, EPA issued guidance on streamlined maintenance plan provisions for certain moderate PM–10 nonattainment areas seeking redesignation to attainment (Memorandum from Lydia Wegman, Director, Air Quality Standards and Strategies Division, entitled "Limited Maintenance Plan Option for Moderate PM–10 Nonattainment Areas", (Wegman memo). The Wegman memo contains a statistical demonstration that areas meeting certain air quality criteria will, with a high degree of probability, maintain compliance with the standard 10 years into the future. Thus, EPA has already provided the maintenance demonstration for areas that meet the air quality criteria outlined in the Wegman memo. The Wegman memo streamlines the full maintenance plan requirements and establishes the LMP option. The LMP option does not require air quality modeling estimates that clean air can be maintained, a projection of emissions into the future, or some of the standard analyses to determine conformity with the air quality standards. The Wegman memo identifies core provisions that must be included in the LMP. These provisions include an attainment year emission inventory, assurance of continued operation of an EPA-approved air quality monitoring network, and contingency provisions.

### *C. Does the Weirton Area qualify for the LMP option?*

To qualify for the LMP option, the area must have attained the PM–10 NAAQS, and the average annual PM–10 design value for the area, based upon the most recent 5 years of air quality data at all monitors in the area, should be at or below 40 μg/m3, and the 24 hour design value should be at or below 98 μg/m3. If an area cannot meet this test, it may still be able to qualify for the LMP Option if the average design value (ADV) for the site is less than the site-specific critical design values (CDV) (as those terms are used in the Wegman memo). In addition, the area should expect only limited growth in on-road motor vehicle PM–10 emissions (including fugitive dust) and should have passed a motor vehicle regional emissions analysis test.

To show that future emissions will not exceed the level of the attainment inventory, the WVDEP determined the CDV. The CDV is a statistical technique based upon the average design value and its observed variability to estimate the probability of exceeding the NAAQS in the future.

When applied specifically to the Weirton Area 24-hour data for the years 2000 through 2004, the CDV is 137 μg/$m^3$. The actual 5-year average design value for the Weirton Area is 96.8 μg/$m^3$ which is below the level of 98 μg/$m^3$ established for the LMP option. Furthermore, the maximum site average design value of 105.2 μg/$m^3$ is less than the area-specific CDV of 137 μg/$m^3$.

There is no expected population growth in the Weirton Area. The impact of vehicle emissions in the Weirton Area has been determined to be an insignificant contributor to PM–10 nonattainment in the area. Details can be found in the TSD.

Based on our foregoing analysis, we have determined that the Weirton Area qualifies for use of the LMP option.

### *D. Does the LMP Submitted Meet all the Requirements for a Fully Approved Maintenance Plan?*

The Weirton Area meets the criteria for using a LMP for redesignation. The LMP does not require a modeling demonstration to show maintenance of the NAAQS. A projected emissions inventory is also not required. The LMP does require the following:

1. An attainment year emissions inventory
2. Assurance of continued operation of an EPA-approved air quality monitoring network
3. Contingency provisions.

The LMP for the Weirton Area, dated May 24, 2004 includes the necessary provisions for approval. Specifically, it contains the following:

1. Attainment Year Emission Inventory

In the May 24, 2004 submittal, an inventory of allowable emissions of

sources in the nonattainment area was included in the maintenance plan. This inventory will be approved into the SIP as part of the LMP. The inventory is presented in the TSD.

2. Continued Operation of Air Quality Monitoring Network

The LMP includes a commitment to continue to monitor PM–10 in the Weirton Area throughout the 10-year term of the maintenance plan to verify continued attainment of the NAAQS. The monitoring procedures will be determined in accordance with 40 CFR parts 53 and 58.

3. Contingency Measures

Pursuant to section 175A of the Act, 42 U.S.C. 7505A, a maintenance plan must include such contingency measures, as EPA deems necessary, to promptly correct any violation of the NAAQS which may occur after redesignation of the area to attainment. As explained in the Wegman and Calcagni memos, these contingency measures do not have to be fully adopted at the time of redesignation.

The State will rely on monitored ambient air data to determine the need to implement contingency measures. In the event of an exceedance of the PM–10 standard, the State will review the monitored data, the local meteorological data, and the compliance of certain local facilities identified in the maintenance plan. If all such facilities are in compliance with applicable SIP and permit emission limits, the State will then determine the additional control measures the state will need to impose on the area's stationary sources in order to continue to maintain the NAAQS.

In the event of three exceedances of the 24-hour PM–10 standard within a three-year period, the State will notify the stationary sources in the Weirton Area that the potential exists for a NAAQS violation, and that if a violation occurs, these sources will need to implement the measures previously identified. Within six months of receiving notice from the State, the stationary sources must submit a detailed plan of action to WVDEP to implement the identified additional control measures within 18 months after the state notifies the source of an actual violation of the NAAQS. The sources' additional control measure plans will be submitted to EPA for approval and incorporation into the SIP.

*E. Has the State met Conformity Requirements?*

As we stated previously in this notice, EPA believes the conformity SIP requirements do not apply for purposes of evaluating a redesignation request, because conformity rules are still required after redesignation and Federal conformity rules apply where state rules have not been approved. The transportation conformity rule (40 CFR parts 51 and 93) and the general conformity rule (40 CFR parts 51 and 93) apply to nonattainment areas and maintenance areas covered by an approved maintenance plan. Under either conformity rule, an acceptable method of demonstrating that a Federal action conforms to the applicable SIP is to demonstrate that expected emissions from the planned action are consistent with the emissions budget for the area.

While EPA's LMP policy does not exempt an area from the need to demonstrate conformity, it explains that the area may demonstrate conformity without submitting an emissions budget. Under the LMP policy, emissions budgets are treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that the qualifying areas would experience so much growth in that period that a violation of the PM–10 NAAQS would result. For transportation conformity purposes, EPA concludes that mobile source emissions in these areas need not be capped at any level for the maintenance period, and therefore the requirement for a regional emissions analysis would be considered to be met. Similarly, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test" specified in § 93.158(a)(5)(i)(A) for the same reasons that the budgets are essentially considered to be unlimited.

For Federal actions which are required to address the specific requirements of the general conformity rule, one set of requirements applies particularly to ensuring that emissions from the action will not cause or contribute to new violations of the NAAQS, exacerbate current violations, or delay timely attainment. One way that this requirement can be met is to demonstrate that "the total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment area, would not exceed the emissions budgets specified in the applicable SIP." 40 CFR 93.158(a)(5)(i)(A).

The decision about whether to include specific allocations of allowable emissions increases to sources is one made by the State and local air quality agencies. These emissions budgets are not the same as those used in transportation conformity. Emissions budgets in transportation conformity are required to limit and restrain emissions. Emissions budgets in general conformity allow increases in emissions up to specified levels. West Virginia has chosen not to include specific emissions allocations for Federal projects that would be subject to the provisions of general conformity.

While areas with maintenance plans approved under the LMP option are thus essentially not subject to the budget test, the areas remain subject to other transportation conformity requirements of 40 CFR part 93, subpart A. Thus, the metropolitan planning organization (MPO) in the area or the State will still need to document and ensure that: (a) Transportation plans and projects provide for timely implementation of SIP transportation control measures in accordance with 40 CFR 93.113; (b) transportation plans and projects comply with the fiscal constraint element per 40 CFR 93.108; (c) the MPO's interagency consultation procedures meet applicable requirements of 40 CFR 93.105; (d) conformity of transportation plans is determined no less frequently than every four years, and conformity of plan amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104; (e) the latest planning assumptions and emissions model are used as set forth in 40 CFR 93.110 and 40 CFR 93.111; (6) projects do not cause or contribute to any new localized carbon monoxide or particulate matter violations, in accordance with procedures specified in 40 CFR 93.123; and, (7) project sponsors and/or operators provide appropriate written commitments as specified in 40 CFR 93.125.

## IV. Proposed Action

Based on the foregoing analysis, we have determined that the Weirton Area fulfills the criteria for redesignation as attainment with the PM–10 NAAQS. EPA has determined that the submitted maintenance plan meets the requirements of the Act, and the Weirton Area fulfills the criteria for redesignation to attainment for the PM–10 NAAQS based on the State's May 24, 2004 submission. EPA is proposing to determine that the area has continued to attain the PM–10 NAAQS and to determine that certain attainment demonstration requirements, along with other related requirements of part D title I of the CAA as set forth above, are not applicable to the area. EPA is proposing to redesignate the Weirton PM–10

moderate nonattainment area to attainment and to approve the West Virginia SIP revision for the 10-year maintenance plan for the Weirton Area, submitted on May 24, 2004. EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

### V. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this proposed action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)). This action merely proposes to approve state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Redesignation of an area to attainment under section 107(d)(3)(e) of the Clean Air Act does not impose any new requirements on small entities. Redesignation is an action that affects the status of a geographical area and does not impose any new regulatory requirements on sources. Accordingly, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule proposes to approve pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4). This proposed rule also does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely proposes to affect the status of a geographical area, does not impose any new requirements on sources, or allow the state to avoid adopting or implementing other requirements, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This proposed rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Redesignation is an action that affects the status of a geographical area and does not impose any new requirements on sources. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this proposed rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order.

This proposed rule to redesignate the Weirton Area to attainment with the PM–10 NAAQS and approve the LMP as a SIP revision does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

### List of Subjects

*40 CFR Part 52*

Environmental protection, Air pollution control, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

*40 CFR Part 81*

Environmental protection, Air Pollution Control, National parks, Wilderness areas.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: May 3, 2006.

**Donald S. Welsh,**

*Regional Administrator, Region III.*

[FR Doc. E6–7216 Filed 5–10–06; 8:45 am]

BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 271

**[EPA–R04–RCRA–2006–0429; FRL–8168–3]**

### Tennessee: Proposed Authorization of State Hazardous Waste Management Program Revision

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** Tennessee has applied to EPA for final authorization of the changes to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA proposes to grant final authorization to Tennessee. In the "Rules and Regulations" section of this **Federal Register**, EPA is authorizing the changes by an immediate final rule. EPA did not make a proposal prior to the immediate final rule because we believe this action is not controversial and do not expect comments that oppose it. We have explained the reasons for this authorization in the preamble of the immediate final rule. Unless we get written comments which oppose this authorization during the comment period, the immediate final rule will become effective on the date it establishes, and we will not take further action on this proposal.

If we receive comments that oppose this action, we will withdraw the immediate final rule and it will not take effect. We will respond to public comments in a later final rule based on this proposal. You may not have another opportunity for comment.

**DATES:** Comments must be received on or before June 12, 2006.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–R04–RCRA–2006–0429 by one of the following methods:

- *http://www.regulations.gov.* Follow the on-line instructions for submitting comments.
- E-mail: *Gleaton.Gwen@epa.gov.*
- Fax: (404) 562–8439 (prior to faxing, please notify the EPA contact listed below)
- Mail: Send written comments to Gwen Gleaton, RCRA Services Section, RCRA Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, The

9. Answers to the Motion of the United States Postal Service for Partial Waiver or Suspension of Commission Rules Specifying Materials to be filed in Support of its Request for Changes in Postal Rates and Classifications, filed May 3, 2006, are due no later than June 5, 2006.

10. The Secretary shall cause this Notice and Order to be published in the **Federal Register**.

**Steven W. Williams,**

*Secretary.*

[FR Doc. E6–7218 Filed 5–10–06; 8:45 am]

BILLING CODE 7710–FW–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 52 and 81

**[EPA R03–OAR–2004–WV–0001; FRL–8168–7]**

### Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Withdrawal of Proposed Rule

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Withdrawal of proposed rule.

**SUMMARY:** Due to an adverse comment, EPA is withdrawing its Notice of Proposed Rulemaking to redesignate the City of Weirton PM–10 nonattainment area to attainment and approval of the maintenance plan published on October 27, 2004 (69 FR 62637). EPA is also withdrawing the correcting amendment to the NPR published on November 9, 2004 (69 FR 64860).

**DATES:** The proposed rule is withdrawn as of May 11, 2006.

**FOR FURTHER INFORMATION CONTACT:** Linda Miller, (215) 814–2068, or by e-mail at *miller.linda@epa.gov.*

**SUPPLEMENTARY INFORMATION:** Elsewhere in today's **Federal Register**, a separate proposed rulemaking entitled "*Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Redesignation of the City of Weirton PM–10 Nonattainment Area to Attainment and Approval of the Limited Maintenance Plan,*" provides more detailed legal and factual basis for supporting our decision to withdraw the NPR and its related correcting amendment. Our proposed action to approve the State of West Virginia request to redesignate the Weirton area to attainment and approve the associated maintenance plan is also found in the NPR in today's **Federal Register**.

Separate dockets have been prepared for the new proposal and this notice to withdraw the October 27, 2004 Weirton notice of proposed rulemaking.

**List of Subjects**

*40 CFR Part 52*

Environmental protection, Air pollution control, Incorporation by reference, Particulate matter, Reporting and recordkeeping requirements.

*40 CFR Part 81*

Environmental protection, Air pollution control, National Parks, Wilderness areas.

Dated: April 28, 2006.

**Judith Katz,**

*Acting Regional Administrator, Region III.*

[FR Doc. E6–7215 Filed 5–10–06; 8:45 am]

BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 52 and 81

**[EPA–R03–OAR–2005–0480; FRL–8168–6]**

### Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Redesignation of the City of Weirton PM–10 Nonattainment Area to Attainment and Approval of the Maintenance Plan

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** On May 24, 2004, the State of West Virginia submitted a request that EPA redesignate the Weirton nonattainment area (Weirton Area) to attainment for the national ambient air quality standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM–10), and concurrently requested approval of a limited maintenance plan (LMP) as a revision to the West Virginia State Implementation Plan (SIP). In this action, the EPA proposes to approve the LMP for the Weirton Area in West Virginia and grant the State's request to redesignate the area from nonattainment to attainment. EPA's proposed approval is based on its determination that the area has met the criteria for redesignation for attainment specified in the Clean Air Act (CAA). EPA is also proposing to determine that, because the Weirton Area has continued to attain the PM–10 NAAQS, certain attainment demonstration requirements, along with other related requirements of the CAA, are not applicable to the Weirton Area.

**DATES:** Written comments must be received on or before June 12, 2006.

**ADDRESSES:** Submit your comments, identified by Docket ID Number EPA–R03–OAR–2005–0480 by one of the following methods:

A. *http://www.regulations.gov.* Follow the online instructions for submitting comments.

B. E-mail: *Morris.makeba@epa.gov.*

C. Mail: EPA–R03–OAR–2005–0480, Makeba Morris, Chief, Air Quality Planning and Analysis Branch, Mailcode 3AP21, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.

D. Hand Delivery: At the previously-listed EPA Region III address. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–R03–OAR–2005–0480. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

*Docket:* All documents in the electronic docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute.




Federal Register

Friday,
December 16, 2005

Part II

# Environmental Protection Agency

40 CFR Part 60
Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[EPA–HQ–OAR–2003–0156; FRL–8005–5]**

**RIN 2060–AG31**

## Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating new source performance standards (NSPS) and emission guidelines for new and existing "other" solid waste incineration units (OSWI). The final rules for OSWI units fulfill the requirements of sections 111 and 129 of the Clean Air Act (CAA), which require EPA to promulgate NSPS and emission guidelines for solid waste incineration units. The final rules, which address only the incineration of nonhazardous solid wastes, will protect public health by reducing exposure to air pollution.

**DATES:** Amendments to § 60.17 are effective February 14, 2006. The standards for new sources in subpart EEEE of 40 CFR part 60 (sections 60.2880 through 60.2977) are effective June 16, 2006. The incorporation by reference of certain publications listed in the NSPS is approved by the Director of the Federal Register as of June 16, 2006. The emission guidelines for existing sources in subpart FFFF of 40 CFR part 60 (sections 60.2980 through 60.3078) are effective February 14, 2006. The incorporation by reference of certain publications listed in the emission guidelines is approved by the Director of the Federal Register as of February 14, 2006.

**ADDRESSES:** Docket. EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2003–0156. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *i.e.*, confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at EPA Docket Center (EPA/DC), EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Mary Johnson, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5025; e-mail address: *johnson.mary@epa.gov*.

**SUPPLEMENTARY INFORMATION:**

*Regulated Entities.* Categories and entities potentially regulated by the final rules are very small municipal waste combustion (VSMWC) units and institutional waste incineration (IWI) units. The final OSWI emission guidelines and NSPS potentially affect the following categories of sources:

| Category | NAICS code | SIC code | Examples of potentially regulated entities |
|---|---|---|---|
| Any State, local, or Tribal government using a VSMWC unit as defined in the regulations. | 562213, 92411 | 4953, 9511 | Solid waste combustion units burning municipal waste collected from the general public and from residential, commercial, institutional, and industrial sources. |
| Institutions using an IWI unit as defined in the regulations. | 922, 6111, 623, 7121 | 9223, 8211, 7999 | Correctional institutions, primary and secondary schools, camps and national parks. |
| Any Federal government agency using an OSWI unit as defined in the regulations. | 928 | 9711 | Department of Defense (labs, military bases, munitions facilities). |
| Any college or university using an OSWI unit as defined in the regulations. | 6113, 6112 | 8221, 8222 | Universities, colleges and community colleges. |
| Any church or convent using an OSWI unit as defined in the regulations. | 8131 | 8661 | Churches and convents. |
| Any civic or religious organization using an OSWI unit as defined in the regulations. | 8134 | 8641 | Civic association and fraternal associations. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the final rules. To determine whether your facility is regulated by the final rules, you should examine the applicability criteria in the NSPS for new sources located at 40 CFR 60.2885 through 60.2888 of subpart EEEE, and in the emission guidelines for existing sources located at 40 CFR 60.2991 through 60.2994 of subpart FFFF. If you have any questions regarding the applicability of the final rules to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*Docket.* The docket number for the final NSPS (40 CFR part 60, subpart EEEE) and emission guidelines (40 CFR part 60, subpart FFFF) is Docket ID No. EPA–HQ–OAR–2003–0156.

*Worldwide Web (WWW).* In addition to being available in the docket, an electronic copy of the final rules is available on the WWW through the Technology Transfer Network Website (TTN Web). Following signature, EPA will post a copy of the final rules on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg*. The TTN provides information and technology exchange in various areas of air pollution control.

*Judicial Review.* Under CAA section 307(b)(1), judicial review of the final rules is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by February 14, 2006. Under CAA section 307(d)(7)(B), only an objection to the final rules that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for the EPA to convene a proceeding for

reconsideration, "[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to the EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20004.

*Organization of This Document.* The following outline is provided to aid in locating information in this preamble.

I. Background
II. Summary of the Final Rules
A. Do the final rules apply to me?
B. What emission limits must I meet?
C. What operating limits must I meet?
D. What are the other requirements?
E. What are the requirements for air curtain incinerators?
F. What title V permit requirements must I meet?
III. What are the changes to the rules since proposal?
IV. Significant Issues and Changes-Public Comments
A. Applicability
B. Definitions
C. MACT Floors and Emission Limits
D. Title V Operating Permits
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F. Impacts
V. Impacts of the Final Rules
A. What are the impacts for new units?
B. What are the impacts for existing units?
VI. Statutory and Executive Order Reviews
A. Executive Order 12866, Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

## I. Background

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to develop and adopt NSPS and emission guidelines for solid waste incineration units pursuant to CAA section 111. Section 111(b) of the CAA requires EPA to establish NSPS for new sources, and CAA section 111(d) requires EPA to establish procedures for States to submit plans for implementing emission guidelines for existing sources. Under CAA section 111, NSPS and emission guidelines must be developed for new and existing stationary sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.

Congress specifically added section 129 to the CAA to address concerns about emissions from solid waste combustion units. Section 129(a)(1) of the CAA identifies five categories of solid waste incineration units:

(1) Units with a capacity of greater than 250 tons per day (tpd) combusting municipal waste;

(2) Units with a capacity equal to or less than 250 tpd combusting municipal waste;

(3) Units combusting hospital, medical and infectious waste;

(4) Units combusting commercial or industrial waste; and

(5) Unspecified "other categories of solid waste incineration units."

Section 129(g)(1) of the CAA identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA.

For each category of incineration unit identified under CAA section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter (PM), sulfur dioxide ($SO_2$), hydrogen chloride (HC1), nitrogen oxides ($NO_X$), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans), and for opacity as appropriate. Section 129 of the CAA provides EPA with the discretion to establish emission limitations for other pollutants as well. (See CAA section 129(a)(4).)

Under CAA section 129, the NSPS and emission guidelines adopted for solid waste combustion units must reflect the maximum achievable control technology (MACT). Accordingly, EPA=s standards under CAA section 129 must "reflect the maximum degree of reduction in emissions of [the listed] air pollutants * * * that the Administrator, taking into consideration the cost of achieving such emissions reductions, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category * * *." (See CAA section 129(a)(2).) However, the standards for new units must not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, and the standards for existing sources must not be less stringent than the average emissions limitations achieved by the best performing 12 percent of units in the category.

EPA previously developed regulations for each of the listed categories of solid waste incineration unit except for the undefined "other categories of solid waste incineration units." Four notices have been published regarding OSWI regulatory development (58 FR 31358, June 2, 1993; 58 FR 58498, November 2, 1993; 65 FR 67367, November 9, 2000; 69 FR 71472, December 9, 2004). In the November 9, 2000 notice, EPA revised the OSWI regulatory schedule to include a November 2005 date for promulgation of final regulations. This deadline was subsequently incorporated into a consent decree, requiring that EPA propose regulations for the OSWI source category by November 30, 2004, and promulgate final rules by November 30, 2005. On December 9, 2004, EPA proposed NSPS and emission guidelines for OSWI units (69 FR 71472). EPA received 26 public comment letters from a variety of sources, consisting mainly of government agencies, environmental organizations, incinerator manufacturers, and various incinerator owners/operators. By today's notice EPA promulgates final regulations for "other" (or OSWI) units.

## II. Summary of the Final Rules

### *A. Do the final rules apply to me?*

The final OSWI rules apply to you if you own or operate either of the following:

(1) An incineration unit with a capacity less than 35 tpd burning municipal solid waste (MSW) (as defined in CAA section 129, 40 CFR 60.2977 of subpart EEEE, and 40 CFR 60.3078 of subpart FFFF); or

(2) An incineration unit located at an institutional facility burning institutional waste (as defined in 40 CFR 60.2977 of subpart EEEE and 40 CFR 60.3078 of subpart FFFF) generated at that facility.

Requirements for air curtain incineration units that would otherwise be VSMWC or IWI units, but for the fact

that they burn certain materials, are discussed later in this preamble. If your incineration unit is currently meeting emission limitations and other requirements of another CAA section 129 regulation (i.e., small or large municipal waste combustion (MWC) units; hospital, medical, infectious waste incineration (HMIWI) units; or commercial and industrial solid waste incineration (CISWI) units), the final OSWI rules do not apply to you. Likewise, if an institutional combustion unit is covered under the CAA section 112 national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters (boilers NESHAP), it is not subject to the final OSWI rules. Certain types of combustion units listed in 40 CFR 60.2887 of subpart EEEE and 40 CFR 60.2993 of subpart FFFF are also excluded from the final OSWI rules.

If you began construction of your incineration unit on or before December 9, 2004, it is considered an existing unit and is subject to the emission guidelines (40 CFR part 60, subpart FFFF). If you began construction of your incineration unit after December 9, 2004, it is considered a new unit and is subject to the NSPS (40 CFR part 60, subpart EEEE).

If you began reconstruction or modification of your incineration unit prior to June 16, 2006, it is considered an existing unit and is subject to the emission guidelines. Likewise, if you begin reconstruction or modification of your incineration unit on or after June 16, 2006, it is considered a new unit and is subject to the NSPS.

*B. What emission limits must I meet?*

As the owner or operator of a new OSWI unit, you must meet the emission limits specified in table 1 of this preamble. You must conduct an initial performance test to show compliance within 60 days after a new OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after the unit's initial startup.

As the owner or operator of an existing OSWI unit, you must meet the emission limits specified in table 1 of this preamble within 3 years after the effective date of State plan approval or by a compliance date to be established when EPA promulgates a Federal plan, but no later than December 16, 2010. The December 16, 2010 deadline is set by the statute. (See CAA section 129(f)). Thus, if EPA approves a State plan in 2009, December 16, 2010 will still be the deadline for complying. EPA plans to promulgate a Federal plan that will require compliance by December 16, 2010 in those areas that fail to submit an approvable State plan.

TABLE 1.—EMISSION LIMITS FOR NEW AND EXISTING OSWI UNITS

| For these pollutants | You must meet these emission limits [a] | And determine compliance using these methods [b c] |
|---|---|---|
| Cd | 18 micrograms per dry standard cubic meter (μg/dscm). | EPA Method 29. |
| CO | 40 parts per million dry volume (ppmdv) | EPA Methods 10, 10A or 10B. |
| Dioxins/Furans (total mass basis) | 33 nanograms per dry standard cubic meter (ng/dscm). | EPA Method 23. |
| HCl | 15 ppmdv | EPA Method 26A. |
| Pb | 226 μg/dscm | EPA Method 29. |
| Hg | 74 μg/dscm | EPA Method 29. |
| Opacity | 10% | EPA Method 9. |
| $NO_X$ | 103 ppmdv | EPA Methods 7, 7A, 7C, 7D, or 7E. [d] |
| PM | 0.013 grains per dry standard cubic foot (gr/dscf). | EPA Method 5 or 29. |
| $SO_2$ | 3.1 ppmdv | EPA Method 6 or 6C. [e] |

[a] All emission limits (except opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b] These methods are in 40 CFR part 60, appendix A.
[c] Compliance with the CO emission limit is determined on a 12-hour rolling average basis using continuous emission monitoring system data. Compliance for the other emission limits is determined by stack testing.
[d] ASME PTC 19–10–1981–Part 10 is an acceptable alternative to only Methods 7 and 7C.
[e] ASME PTC 19–10–1981–Part 10 is an acceptable alternative to only Method 6.

*C. What operating limits must I meet?*

If you use a wet scrubber to comply with the emission limits, you must establish the maximum and minimum site-specific operating limits indicated in table 2 of this preamble. You must then operate the OSWI unit so that the charge rate does not exceed the established maximum charge rate. You must operate the wet scrubber so that the pressure drop or amperage, scrubber liquor flow rate, and scrubber liquor pH do not fall below the minimum established operating limits.

TABLE 2.—OPERATING LIMITS FOR NEW AND EXISTING OSWI UNITS USING WET SCRUBBERS

| For these operating parameters | You must establish these operating limits | And monitor continuously using these recording times |
|---|---|---|
| Charge rate | Maximum charge rate | Every hour. |
| Pressure drop across the wet scrubber, or amperage to the wet scrubber. | Minimum pressure drop or amperage | Every 15 minutes. |
| Scrubber liquor flow rate | Minimum flow rate | Every 15 minutes. |
| Scrubber liquor pH | Minimum pH | Every 15 minutes. |

**Note:** Compliance is determined on a 3-hour rolling average basis, except charge rate for batch incinerators, which is determined on a 24-hour basis.

If you use an air pollution control device other than a wet scrubber to comply with the emission limits, you must petition the EPA for approval of other site-specific operating limits to be established during the initial performance test and continuously monitored thereafter. The information you must include in your petition is described in 40 CFR 60.2917 of subpart EEEE and 40 CFR 60.3024 of subpart FFFF.

*D. What are the other requirements?*

As the owner or operator of a new or existing OSWI unit, you must meet the following additional requirements.

*Siting Analysis (new units only):*

• Submit a report that evaluates site-specific air pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

*Waste Management Plan:*

• Submit a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream to reduce or eliminate toxic emissions from incinerated waste.

*Operator Training and Qualification Requirements:*

• Qualify operators or their supervisors (at least one per facility) by ensuring that they complete an operator training course and annual review or refresher course.

*Testing Requirements:*

• Conduct initial performance tests for Cd, CO, dioxins/furans, HCl, Pb, Hg, $NO_x$, opacity, PM, and $SO_2$ and establish operating limits (i.e., maximum or minimum values for operating parameters).

• Conduct annual performance tests for all nine pollutants and opacity. (An owner or operator may conduct less frequent testing if the facility demonstrates that it is in compliance with the emission limits for three consecutive performance tests.)

*Monitoring Requirements:*

• Continuously monitor CO emissions.

• If using a wet scrubber to comply with the emission limits, continuously monitor the following operating parameters: charge rate, pressure drop across the wet scrubber (or amperage), and scrubber liquid flow rate and pH.

• If using something other than a wet scrubber to comply with the emission limits, monitor other operating parameters, as approved by the EPA.

*Recordkeeping and Reporting Requirements:*

• Maintain for 5 years records of the initial performance tests and all subsequent performance tests, operating parameters, any maintenance, the siting analysis (for new units only), and operator training and qualification. Each record must be kept on site for at least 2 years. The records may be kept off site for the remaining 3 years.

• Submit the results of the initial performance tests and all subsequent performance tests and values for the operating parameters.

• Submit annual compliance reports and semiannual reports of any deviations from the emission limits, operating limits, or other requirements.

• Apply for and obtain a title V operating permit.

*E. What are the requirements for air curtain incinerators?*

The final OSWI rules establish opacity limitations for air curtain incineration units that would otherwise meet the definitions of IWI or VSMWC units, but burn only:

• 100 percent wood wastes;
• 100 percent clean lumber;
• 100 percent yard waste; or
• 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The opacity limit is 10 percent. However, 35 percent opacity is allowed during startup periods that are within the first 30 minutes of operation. Air curtain incinerators burning only these materials must meet the opacity limits and certain monitoring, recordkeeping, and reporting requirements, and must apply for and obtain a title V operating permit.

Air curtain incinerators burning other institutional waste or municipal waste must meet the requirements of the final OSWI rules including all emission limits in table 1 of this preamble and the associated testing, permitting, monitoring, recordkeeping, and reporting requirements.

*F. What title V permit requirements must I meet?*

All new and existing OSWI units and air curtain incinerators regulated by the final OSWI rules must apply for and obtain a title V operating permit. These title V operating permits assure compliance with all applicable Federal requirements for regulated incineration units, including all applicable CAA section 129 requirements. (See 40 CFR 70.6(a)(1), 70.2, 71.6(a)(1) and 71.2.)

The permit application deadline for a CAA section 129 source applying for a title V operating permit depends on when the source first becomes subject to the relevant title V permits program. If a regulated incineration unit is a new unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before the relevant date below:

(1) For a unit that commenced operation as a new source on or before December 16, 2005, a complete title V permit application must be submitted not later than December 18, 2006; or

(2) For a unit that does not commence operation as a new source until after December 16, 2005, a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source. (See CAA section 503(c) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is an existing unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted by the earlier of the following dates:

(1) Twelve months after the effective date of any applicable EPA-approved CAA section 111(d)/129 plan (i.e., an approved State or Tribal plan that implements the OSWI emission guidelines);

(2) Twelve months after the effective date of any applicable Federal plan; or

(3) December 16, 2008.

For any existing incineration unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR part 60, subpart FFFF, applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable CAA section 111(d)/129 plan is approved by EPA and becomes effective. (See CAA sections 129(e), 503(c), 503(d), and 502(a) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is subject to title V as a result of some triggering requirement(s) other than those mentioned above (for example, a unit may be a major source or part of a major source), then you may be required to apply for a title V operating permit for that unit prior to the deadlines specified above. If more than one requirement triggers a source's obligation to apply for a title V operating permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement which first causes the source to be subject to title V. (See CAA section 503(c) and 40 CFR 70.3(a) and (b), 70.5(a)(1)(i), 71.3(a) and (b), and 71.5(a)(1)(i).)

For additional background information on the interface between CAA section 129 and title V, including EPA's interpretation of CAA section 129(e), information on updating existing

title V operating permit applications and reopening existing title V permits, see the final Federal Plan for Commercial and Industrial Solid Waste Incinerators, October 3, 2003 (68 FR 57518, 57532), as well as the "Summary of Public Comments and Responses" document in the OSWI docket (EPA–HQ–OAR–2003–0156).

**III. What are the changes to the rules since proposal?**

We made several revisions to the OSWI rules since proposal. As previously stated, a summary of public comments and EPA's responses to those comments is located in the docket. The following is a summary of the most significant changes.

Definitions

- *Institutional facility.* Replaced the term "institution," as defined at proposal, with the term "institutional facility", which was the term we intended to define. Clarified that the term "institutional facility" means land-based facility.
- *Institutional waste.* Revised the definition of "institutional waste" to be clearer and to eliminate redundancy while maintaining the same meaning as the proposed definition.
- *IWI unit and MWC unit.* Revised the definitions of "institutional waste incineration unit" and "municipal waste combustion unit" by adding "cyclonic burn barrel" as another example of an incinerator design.
- *Clean lumber and wood waste.* Clarified that the definitions of "clean lumber" and "wood waste" exclude wood products that contain adhesives.
- *Administrator and EPA.* Revised the definition of "Administrator" and added a definition for the term "EPA" to clarify our intent with respect to implementation of the final OSWI rules. "Administrator" now means (1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee; (2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and (3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task. "EPA" means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.
- *Waste heat recovery.* Clarified that "waste heat recovery" occurs outside of the combustion firebox.

Exclusions

- *Rural IWI exclusion.* Revised the rural IWI exclusion such that in addition to the proposed requirement that the unit must be more than 50 miles from the boundary of the nearest Metropolitan Statistical Area (MSA), the unit must also be in an area "where alternative disposal options are not available or are economically infeasible." Also added provisions to require a facility to apply for the rural IWI exclusion and reapply for this exclusion every 5 years.
- *Temporary-use exclusion.* Added ice storms and high winds to the list of example disasters. Clarified that this exclusion includes air curtain incinerators. Restricted the exclusion to areas where a local, State, or Federal declaration of emergency or disaster has been proclaimed. Also revised the exclusion to require all temporary-use incinerators to submit notification if they will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the current disaster area.
- *Prohibited goods exclusion.* Limited the exclusion to incinerators "owned and/or operated by," not merely "used by" government agencies. Clarified that the exclusion applies only to goods confiscated by a government agency.
- *National security exclusion.* Determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. Added a provision to allow other IWI units to apply for an exclusion if the units are used solely to destroy national security materials and a reliable alternative to incineration that would ensure acceptable destruction is not available.

Emission Limits

- *Carbon monoxide (CO) limit.* Revised the limit from 5 parts per million by volume (ppmv) to 40 ppmv on a 12-hour rolling average basis.
- *Hydrogen chloride (HCl) limit.* Revised the limit from 3.7 ppmv to 15 ppmv.

Testing

- Added procedures to follow when performing Method 26A tests that will improve accuracy for testing wet scrubber-equipped incinerators.
- Clarified annual testing requirements for air curtain incinerators. If an air curtain incinerator has been out of operation for more than 12 months, it must be tested upon startup.

Technical Corrections and Clarifications

- In addition to the listed revisions, EPA made several technical revisions to correct cross-referencing and typographical errors and to improve clarity of the rules.

**IV. Significant Issues and Changes—Public Comments**

*A. Applicability*

We received several comments on the scope and applicability of the proposed OSWI rules. These comments ranged from very specific ones dealing with a certain category of units, to more overarching comments concerning applicability of the OSWI rules in general. The following paragraphs contain the major discussions regarding applicability; additional details may be found in the summary of public comments and responses document in the docket.

1. General Applicability of OSWI Rules

Two commenters expressed concern that the applicability of the proposed rules is not broad enough and that too many source categories are excluded or exempt from regulation. One commenter contended that EPA's OSWI regulation must include CAA section 129 standards for every category of solid waste incinerator that is not already regulated under CAA section 129. The commenter contended that the CAA requires EPA to set section 129 standards for any facility that combusts any solid waste, with the exception of facilities specifically exempted under CAA section 129(g)(1). The commenter made similar comments on most of the excluded types of units, stating that they should be subject to regulation under OSWI if they burn any nonhazardous waste. On the other hand, another commenter expressed support for the rationale regarding which sources will be regulated as OSWI units. The commenter urged EPA to avoid any significant changes to this stated rationale.

The CAA is ambiguous regarding what categories of solid waste incineration units must be regulated under section 129(a)(1)(E). After discussing timelines for very specific categories of solid waste incinerators (e.g., large and small municipal waste

combustors, commercial and industrial waste incinerators, and hospital and medical waste incinerators), the CAA states only that EPA must publish a schedule for promulgating standards for "other categories of solid waste incineration units." The statute does not unambiguously require, as implied by commenters, that the OSWI standards must apply to every other possible type of incineration unit burning any type of solid waste. If Congress had intended such a clear directive, it could have instructed EPA to regulate "every" other solid waste incineration unit. Yet Congress did not use such unambiguous language, leaving it to EPA to interpret the CAA in a reasonable manner. Moreover, the position adopted by commenters would lead to absurd results. Under their interpretation, a homeowner burning leaves in a barrel in his or her backyard must be subject to a CAA section 129 rule because the barrel is a unit combusting solid waste material. Congress cannot have intended that EPA regulate such sources under section 129, with all the attendant requirements. The language of section 129 suggests that Congress wanted to focus EPA's attention to specific, larger incineration units (e.g., MWC units and CISWI units). Under this commenter's interpretation of section 129, however, EPA would have to establish MACT floors and emissions standards for dozens of different types of small incineration units with potentially minimal emissions.[1] It takes an enormous effort and use of resources to develop a MACT floor and write a section 129 standard, and Congress cannot have meant that EPA would undertake that substantial effort a multitude of times merely by instructing EPA to address "other" categories of solid waste incineration units (assuming EPA even has the resources to undertake such efforts). Moreover, sources subject to section 129 standards must obtain title V operating permits and undertake extensive testing, monitoring, and recordkeeping even if EPA does not require additional controls under the section 129 standard, and regardless of the level of emissions from the sources. As noted elsewhere, EPA estimates that the costs of these requirements alone can more than quadruple the costs of owning and operating an incinerator. Again, Congress cannot have intended that every "incineration" unit as defined by the commenter, regardless of its size or its impact on public health and the environment, would have to shoulder these burdens merely by referencing an undefined "other" category of incineration units at section 129(a)(1)(E). Thus, the instructions to EPA to promulgate standards for "other categories" of solid waste incinerators inherently include the authority for EPA to reasonably delineate those "other" categories of solid waste incineration units.

Thus, appropriately, the first step in EPA's rulemaking process was determining what universe of sources will be subject to the regulations. The statutory provisions of CAA sections 129(a), (g) and (h) make it clear that EPA must, as a part of the regulatory process, define which combustion units should be subject to regulation under CAA section 129 and hence, to which categories of solid waste combustion units the standards for "other categories of solid waste incineration units" apply. For example, the reference in CAA section 129(g)(1) to a permit issued under section 3005 of the SWDA, refers to units burning hazardous solid waste. This effectively limits the scope of EPA's authority under CAA section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. In determining the scope of OSWI, EPA collected and analyzed data to identify potential OSWI units and determined that the regulations should focus on two categories of waste combustion units that are not regulated elsewhere: IWI units and VSMWC units. In the proposed rules, we also clarified that certain types of units are not regulated by the OSWI rules. Some of these units are specifically excluded by CAA section 129 (e.g. hazardous waste combustion, small power production facilities, cogeneration facilities burning homogeneous waste). We also clarify that units are not covered under OSWI if they are already regulated under other CAA section 129 or CAA section 112 standards (e.g., small and large MWC, HMIWI, CISWI, boilers, cement kilns). The language of CAA section 129(h) makes clear the Congressional intent for CAA regulations under section 129 or section 112 to be mutually exclusive. Accordingly, sources subject to CAA section 112 standards are not OSWI units. Absence of regulation under CAA section 112, however, is not determinative of whether a unit is subject to the final OSWI rules.

Moreover, we do not agree that the "small power production facilities" or "qualifying cogeneration facilities" described in CAA section 129(g)(1) are the only types of energy recovery facilities that are properly excluded from the OSWI category. We do not read section 129(g)(1) to establish an exclusive list of excluded sources. (See *National Wildlife Federation* v. *Gorsuch*, 693 F.2d 156, 172 (D.C.Cir.1982) (use of the term "includes" allows for additional, unstated meanings); *Chemehuevi Indian Tribe* v. *California St. Bd. of Equalization*, 757 F.2d 1047, 1054 (9th Cir.1985), rev'd on different grounds, 106 S.Ct. 289 (1985) ("includes" is a term of enlargement, not of limitation); *United States* v. *Huber*, 603 F.2d 387, 394 (2d Cir. 1979), cert. denied, 100 S.Ct. 1312 (1980) (use of the word "includes," rather than a more restrictive term such as "means," indicates that the list is not exhaustive but merely illustrative).)

As stated earlier, the final OSWI rules regulate IWI and VSMWC units. However, we determined that some subclasses of OSWI units should be handled differently due to unusual circumstances (e.g., unique geographic locations or climatic factors, temporary emergency use) that would prevent owners or operators of these units from having a feasible alternative waste disposal method. The availability of technically and economically feasible waste disposal alternatives is important because, as stated in the preamble to the proposed rules, CAA section 129 rules must contain testing, permitting, monitoring, recordkeeping, and reporting requirements. These requirements alone would easily double or triple the cost of operating a smaller incinerator like those covered by the final OSWI rules. Therefore, we expect CAA section 129 rules (even if they did not require air pollution controls) to force many incinerators to shut down and utilize alternative waste disposal options. However, for unique subclasses of units where such alternatives are not available, compliance with a rule would be infeasible yet shutdown of these units also is not an acceptable alternative. We excluded certain such subclasses from the final OSWI rules for the reasons described in the preamble to the proposed rules and in responses to comments. Of course, EPA and States may still regulate these subclasses under other provisions of the CAA, as necessary. (See CAA section 110(a)(2).)

2. Units With Energy Recovery and Other Types of Combustors

Two commenters questioned the rationale of excluding incinerators (one commenter specified IWI units) with energy recovery from the definition of solid waste incinerators, and believe that an incinerator burning waste should be regulated as a waste

[1] Total emissions of the regulated air pollutants from all units in the two subcategories regulated by the final OSWI rules are estimated to total only 2,272 tons per year.

incinerator, no matter how the produced heat is used.

First, we note that the energy recovery comment applies to IWI units, as all VSMWC units, with or without energy recovery, are subject to the final OSWI regulations. Those MWC units that recover energy serve dual purposes: (1) The disposal of municipal solid waste, and (2) energy recovery from the combustion of the waste. As a result of these dual purposes, MWC units are often boilers by design. The inclusion of a specific definition of "municipal waste" in CAA section 129 and other indications of Congressional intent support EPA's position that all MWC units should be regulated under section 129 of the CAA regardless of whether the MWC unit serves another purpose. The regulatory boundaries established in the rules for the large and small MWC units are quite clear that MWC units, regardless of their configuration, are regulated under section 129 of the CAA. Our intent is to maintain this interpretation in our regulation of VSMWC units under the final OSWI regulations. In summary, VSMWC units that are incinerators without energy recovery, incinerators with waste heat recovery, and boilers are all regulated under the final OSWI rules. See below for further discussion.

The regulatory boundaries for IWI units, however, are not clearly defined by the CAA. As we have discussed, for the IWI subcategory of OSWI, EPA must define which types of sources should be included in the subcategory. In the process of developing the OSWI rules, developing the boilers NESHAP (promulgated at 69 FR 55218, September 13, 2004), developing rules for area source boilers, promulgating requirements for electric utility steam generating units (70 FR 28606, May 18, 2005), and establishing rules applicable to other combustion sources, EPA must map the regulatory boundaries that identify which units are subject to section 129.

The distinction between IWI units and non-IWI combustion units is not readily apparent. For example, there is general agreement that coal that is combusted in a boiler is not waste, because coal is commonly thought of as a fuel. However, there are many other materials that are burned in institutional boilers for energy recovery. Such materials could include wood, paper, other biomass, plastics, and other items. Combustion of such materials, when burned in a boiler with energy recovery, is addressed under CAA section 112 regulations for boilers. EPA has determined that for purposes of the IWI subcategory of OSWI units, the critical consideration in determining whether the unit is burning institutional waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated for energy recovery. On one hand, boiler units are specifically designed to recover the maximum amount of heat from combustion of a material. The boilers NESHAP covers combustion units at institutional facilities that burn solid materials and recover heat in the combustion firebox. Incineration units, on the other hand, are designed to discard materials by burning them at high temperatures and leaving as little residue as possible. Although incineration units do not have energy recovery in the combustion firebox, they may be followed by waste heat recovery units. Combustion units at institutional facilities that burn solid materials and do not recover heat in the combustion firebox, but do recover waste heat from the hot combustion gases following the combustion firebox, would not be covered by the boilers NESHAP. Waste heat recovery units are designed to cool the exhaust gas stream from an incineration unit, and/or recover, indirectly, the useful heat remaining in the exhaust gas. The presence of a waste heat recovery unit on the exhaust gas does not change the fact that the unit combusting the material is primarily an incineration unit burning waste for disposal purposes. EPA does not consider it appropriate to regulate such units as boilers. Therefore, we have determined that IWI units are those units that combust materials with only waste heat recovery (i.e., heat recovery outside of the combustion firebox) or without energy recovery.

Our focus on the primary function of the unit to identify institutional waste is consistent with the provisions in section 129 of the CAA that apply to MWC units. In section 129, Congress specifically defined municipal waste as "refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources * * *." (See 42 U.S.C. section 7429(g)(5).) This definition goes on to list specific materials included in municipal waste and exclude incineration units combusting 30 percent or less municipal waste from the MWC standards. This definition of municipal waste provides more specific meaning to the phrase "solid waste * * * from the general public" set forth in section 129(g)(1) of the CAA. Based on the definition of municipal waste in section 129(g)(5), EPA has interpreted section 129 to cover all MWC units, including waste-to-energy facilities that have energy recovery as part of their integral design. When CAA section 129 was developed, EPA had already taken steps to promulgate new source performance standards and emissions guidelines for MWC units under section 111 of the CAA. Thus, by defining "municipal waste" in this manner in section 129(g)(5), Congress determined that MWC units should be regulated as under section 129 even if the MWC unit serves another purpose (e.g., energy recovery). This determination is consistent with our approach in the final OSWI rules because a primary function of a MWC unit is waste disposal.

In contrast, Congress did not define "other solid waste incineration unit" or other types of "waste." Thus, the CAA is ambiguous regarding whether every unit that burns material for energy recovery should be regulated under section 129 of the CAA. We have interpreted the CAA to allow EPA to consider the primary function of the combustion units in making the determination of whether particular units should be subject to CAA section 129. For reasons discussed earlier, this question is harder to answer in the context of institutional facilities where certain combustion units have been historically considered boilers, rather than incinerators, based on the combustion of solid materials commonly regarded as fuels. However, in the case of municipal waste combustors, there has been little or no disagreement among industry, government agencies, and environmental groups on the meaning of MSW and the fact that the section 129 rules cover all MWC units. Thus, we did not have to address this issue at length in the MWC rules. (See 69 FR 7394, n.5.)

One of the commenters also contended that EPA has not proposed standards for all solid waste combustion technologies. The commenter listed pyrolysis, thermal oxidation, catalytic cracking, plasma arcs, catalytic oxidation, flameless thermal oxidizers, and gasification as technologies that have been used to combust solid waste, despite not having the name "incineration."

EPA notes that the commenter did not provide any details regarding these other technologies or the materials that are processed by these technologies. Some of these types of units may well be covered under the CAA section 129 final OSWI rules. For example, pyrolysis/combustion units (two chamber incinerators with a starved air primary chamber followed by an

afterburner to complete combustion) within the VSMWC and IWI subcategories are considered OSWI units. In addition, thermal oxidizers, catalytic oxidizers, and flameless thermal oxidizers, if used to combust solid waste, could be subject to the final OSWI rules or other section 129 rules if they meet the appropriate applicability requirements. It is important to note, however, that these types of units often are used to combust uncontained gases (generally from industrial processes) and are not used to dispose of solid waste. Such units would not be subject to the final OSWI rules. The other types of units mentioned by the commenter appear to be either: (1) part of industrial processes (e.g. catalytic cracking) and are regulated under CAA section 112 and other standards for the specific industrial process; (2) noncombustion thermal technologies that operate with an external heat source (e.g. plasma arc); or (3) technologies that are specifically designed to prevent combustion reactions, and, instead are used to produce fuel or chemical feedstocks via controlled chemical reactions (e.g. gasification). Any of these technologies that are used to process hazardous waste are excluded from CAA section 129, and any of these technologies that are regulated as site remediation units under CAA section 112 are also not subject to section 129.

3. Potential OSWI Subcategories Where No Units Could Be Identified

One commenter contended that EPA's failure to identify any units burning manure or livestock bedding, wood waste, or construction and demolition waste does not excuse EPA from setting emission standards for such units.

EPA made significant attempts to identify incinerators in determining which types of sources to regulate under the final OSWI rules. As part of the industrial combustion coordinated rulemaking (ICCR), we sent a questionnaire to nearly 12,000 facilities identified as having a combustion unit (including boilers, heaters, and incinerators) burning non-fossil materials. This included every facility we could identify from Federal and State databases and stakeholder input. We received responses from the vast majority of these facilities, although many were no longer operating their incinerators. These responses provided design and operating information on over 1,100 combustion units burning wood. However, all of these sources were either boilers or process heaters with integral energy recovery that are being addressed under CAA section 112, or commercial or industrial incineration units that are appropriately regulated under CISWI. We are not aware of, nor has the commenter provided any information on, any other wood-fired units remaining for consideration as potential OSWI units.

Similarly, a few units were identified that combust agricultural residues such as bagasse, rice hulls, etc. for the purpose of energy recovery, and, thus, are all boilers and are being addressed under CAA section 112. Prior to proposal of the OSWI rules, we updated the ICCR list of potential OSWI units by searching the latest version of the national emissions inventory (NEI), which contains the latest data from State databases and various Federal programs, for incineration units burning non-fossil materials. We also contacted State agriculture departments to request information on agricultural incineration; contacted trade associations; contacted incinerator vendors to determine what types of incinerators they have been selling and to what markets; and performed Web searches. After these extensive efforts, we were not able to locate any incineration units in several potential subclasses described in the preamble to the proposed rules. This result is not surprising because vendor contacts and feedback from facilities that used to operate OSWI units have shown us that the use of incineration for waste disposal is declining, especially where the units do not recover energy. Given our prior efforts to identify these types of units and the trends in incineration, we do not believe that these types of units currently operate. Furthermore, public commenters on the proposed rules have not provided specific information on any such sources. Because we are unable to locate such units and have no data on them, we are not, and indeed cannot regulate them at this time.

Public commenters on the proposed rules have not provided any information demonstrating that there are agricultural waste incinerators, construction or demolition incinerators, or wood waste incinerators that are not boilers. EPA cannot set a standard under CAA section 129 without adequate operating, emissions, and control technology information for sources within the category. Thus, contrary to the commenter=s suggestion, EPA could not speculate or estimate and set a CAA section 129 standard Ajust in case." Therefore, because we are unable to locate any such units and have no data on how such hypothetical units, if used in the future, may operate, we are not including agricultural waste, construction or demolition, or wood waste incinerators as subcategories of OSWI.

4. Rural Institutional Waste Incinerators

Two commenters suggested that the exemption for rural IWI units is too broad. One commenter contended that the locations proposed to be exempted include many areas where solid waste collection and disposal services are readily available at reasonable cost, and, therefore, the exemption is not justified. The commenter also contended that this raises questions regarding environmental justice, as the exemption implies that economically disadvantaged communities should have worse air quality standards because they are economically disadvantaged. Furthermore, the commenter pointed out that U.S. Government facilities (i.e., Department of Defense) do not have the limited tax base and, therefore, EPA's reasons for the rural exemption do not apply. Both commenters recommended that the rural exemption be narrowed further to include only those areas where landfills or other nonincineration options are not available or feasible.

To address commenters' concerns, EPA is narrowing the rural IWI exclusion to apply only to those IWI units that are more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible. In the final OSWI rules, there are provisions that specify how a facility may apply for this exclusion. For existing units, the application must be submitted to the Administrator at least 1 year before the final compliance date to ensure that there is adequate time for any additional dialogue necessary to determine if an exclusion is warranted, and, if the exclusion is denied, adequate time for the facility to install controls or otherwise arrange for disposal of their waste. For new units, the application must be submitted to and approved by the Administrator prior to initial startup.

By narrowing the exclusion to include only those areas Awhere alternative disposal options are not available or are economically infeasible," we have addressed the commenter=s concern that we should not exempt sources located where waste disposal alternatives are available at a reasonable cost. Our analysis of remote institutional waste disposal costs indicates that a 50 mile distance to dispose of waste is approximately the distance where the costs of operating an incinerator (without control technology) would equal those of taking the waste to a landfill, transfer station, or small or

large MWC unit. As such, we believe that 50 miles from a MSA is a minimum point where institutional facilities would be able to make a legitimate case that they qualify for the exclusion. To clarify the geographical criteria, the MSA definitions that will be used as one component of the exclusion are based upon those found in AUpdated Statistical Definitions and Their Uses' OMB Bulletin 05--02, February 22, 2005.

We realize that, over time, population density changes may cause revisions to the definitions of MSA that would affect the rural status of a rural IWI unit. Furthermore, there may be situations where alternative waste disposal options become available such that the unit may not be able to demonstrate adverse economic impacts of using an alternative means of disposal or the IWI unit is no longer necessary to the institutional facility. To address these situations, we are adding provisions that require sources granted an exclusion as a rural IWI unit to reapply for the exclusion every 5 years following the date the exclusion is granted by the Administrator. If the Administrator finds that the IWI unit no longer qualifies for the exclusion, then the unit is given 3 years to comply with the requirements of the final OSWI rules.

In response to the second issue put forth by the commenter, we disagree that we are implying that economically disadvantaged communities should have worse air quality. As we have discussed in the preamble to the proposed rules, some disposal alternatives to incineration, such as open burning, are worse for air quality than incineration. If the rural institutional facility is unable to afford compliance and there are no other disposal alternatives (*e.g.*, landfills, MWC), then the facility may resort to open burning, littering, or dumping. Open burning presents not only air pollution problems, but can also lead to an increased likelihood of accidental fires. Littering and dumping pose problems such as potential contamination of streams or other water bodies, and attracting vermin and wild animals, which could contribute to disease transmission. The facility, in applying for the rural IWI exclusion, must make a case that suitable alternatives, such as landfilling or hauling waste to a MWC unit, are not available or are not economically feasible. Although we discussed concerns about the local tax base for school districts in the preamble to the proposed rules, it was but one reason for the exclusion which applies to all rural IWI units, not just those located at schools. Thus, other institutions (*e.g.*, Federal facilities, churches) may apply for the exclusion, although we note that certain institutions with larger budgets may have a harder time showing that alternative waste disposal options are economically infeasible.

5. Alaskan Exclusion

Three commenters requested that the exclusion for incinerators in isolated areas of Alaska be broadened. Two commenters expressed concern that the proposed rules do not exempt VSMWC units used to combust municipal-type waste generated at oil-field base operations facilities and remote camps on Alaskan oil fields.

EPA stresses that the final OSWI rules apply only to VSMWC and IWI units, and they provide an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. If the incinerators operated by the commenters meet the definition of VSMWC units and are used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, then they would be excluded from the final OSWI rules. We have insufficient information about the units operated by these commenters (e.g., operating at an oil exploration site or oil-field base camp) to determine if they are VSMWC units, but they appear to be operated by industrial or commercial entities and would likely not meet the definitions of a VSMWC or IWI unit in the final OSWI rules. To be a VSMWC unit under the final OSWI rules, the incinerator must be burning municipal solid waste collected from multiple sites. To be an IWI unit under the final OSWI rules, the incinerator must be located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) and be burning waste generated at that institutional facility. Incinerators at an industrial or commercial facility that burn only waste generated on site at that facility are not VSMWC or IWI units. If the commenter's units are not VSMWC or IWI units, they would not be subject to the final OSWI rules. We recognize that the final CISWI rules do not currently cover commercial/industrial-owned/operated incinerators that burn only municipal-type waste. EPA intends to address regulation of such combustion units under future revisions to the final CISWI rules.

A commenter also expressed concern that the proposed definitions of institution and institutional waste are excessively restrictive and do not fit the unique situations that arise in Alaska. The commenter gave examples such as the existence of Aunorganized" boroughs that have no local government or tax base.

EPA's understanding of the local government structure in Alaska is that there are two types of local government structures: boroughs and unorganized areas. Boroughs, like counties, are collections of one or more municipalities joined in a regional government. Unorganized areas are the non-borough areas where there is either (1) no intermediate government between the State and the tribal, village, or city council, and local government is strictly at the municipal level or (2) no governing body other than the State. We have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. The State of Alaska does not consider the local government structure in determining the class of a municipal solid waste landfill or waste disposal site. The Class II and III determinations are based on the anticipated waste volume and location of the waste disposal site. Further, the incinerators that dispose of municipal solid waste Acollected from" these boroughs and unorganized areas would be VSMWC units, rather than IWI units, so the commenter's concerns regarding the definitions of institution and institutional waste with respect to incinerators serving these local government structures are not relevant.

We would also like to clarify that an incinerator operated by a commercial entity that is burning municipal solid waste that is Acollected from" multiple residences and any local businesses would be considered a VSMWC unit subject to OSWI regulation, provided that it had a capacity of less than 35 tpd of municipal solid waste. This situation is quite common among the small and large MWC units, as several municipalities have contracted or partnered with commercial operators in the construction and operation of their local MWC facility.

In summary, the final OSWI rules apply only to VSMWC and IWI units. As previously described, we have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, as well as an exclusion for rural IWI units (for IWI located more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible). These exclusions fully address small OSWI units in remote areas of Alaska that do not have

technically or economically feasible disposal alternatives, so the concerns raised by the commenters are addressed in the final OSWI rules.

6. Temporary-Use Incinerators

*Exclusion Requirements.* Commenters contended that the proposed requirements for temporary-use incinerators used in disaster recovery are too lax and invite abuse. The commenters pointed out that the Stafford Act, which provides for a State of Emergency or a major disaster to be declared by a State government or the President of the U.S., does not contain any provisions for declaring that the State of Emergency or disaster has ended. As such, under the proposed rules, these incinerators arguably would be allowed to operate indefinitely without any restrictions. One of these commenters contended that, under the proposed rules, operators of portable incinerators could declare Aemergencies' or Adisasters' at their discretion, and travel from place to place burning any sort of debris without any pollution controls, restrictions of location, or public and agency notification requirements. Another commenter stated that the exemption would allow an uncontrolled unit to operate for up to 8 weeks without adequate cause or approval from the proper authority and suggested earlier notification.

EPA agrees that incinerator owner/operators should not be allowed to declare their own Aemergencies' and that was not our intent. We have adjusted the rules as proposed to exclude temporary-use incinerators used to combust debris for a limited period of time from most requirements of these subparts only if they are used in areas that have been declared a State of Emergency by a State or local government, or if the President, under the authority of the Stafford Act, has declared that an emergency or major disaster exists in the area. The inclusion of local disaster area declarations in this exclusion encompasses those disasters that severely affect a municipality or county and require the local government to undertake disaster recovery actions, but where the economic losses are not large enough or sufficiently widespread to require extensive State or Federal financial assistance.

EPA also agrees that some notification and oversight should be required to avoid temporary-use incinerators being operated indefinitely in areas that are declared States of Emergency by the State, local or Federal government. The final rules require that operators of temporary-use incinerators combusting debris in declared emergency or disaster areas notify the Administrator if it is necessary for the units to combust debris within the boundaries of a given emergency or disaster area for more than 8 weeks from the date the units began operation, and request permission to continue to operate. EPA's intent is that if a unit is used during a period that begins on the date the unit started operation and lasts 8 weeks or less, then that unit is excluded from the requirements of the final rules. A unit that operates intermittently for 8 weeks or less over a period longer than 8 weeks from the date the unit started operation (e.g., over a 12-week period) does not meet the requirement for exclusion.

The notification must be submitted in writing by the date 8 weeks after the temporary-use incinerator begins operating within the boundaries of the current emergency or disaster area. The notification must contain the date the incinerator began operation within the current emergency or disaster area, identification of the disaster or emergency for which the incinerator is being used, a description of the types of materials being burned, information on the size and design of the incinerator, the reasons the incinerator must be operated for more than 8 weeks, and the additional amount of time for which permission to operate is requested, including a date for ceasing operation. Upon submittal of the notification, the temporary-use incinerator automatically may operate for another 8 weeks (a total of 16 weeks from the date the unit started operation). At the end of 16 weeks, the temporary-use incinerator must cease operation or comply with the OSWI emission limits and other requirements of the final OSWI rules unless the Administrator has approved the request to continue operation.

Given these changes, 16 weeks will be the maximum length of time a temporary-use incinerator can operate in a given area declared a State of Emergency or major disaster without specific permission to continue operation from the Administrator. The approval of the request to continue operating must establish a site-specific date to cease operation. We have chosen this approach, rather than setting a uniform maximum amount of time because a case-by-case approval process allows EPA and States to set the appropriate time limits for the specific situation.

We decided that the notification should be provided within 8 weeks after the start of operation to be consistent with the timing in the proposed rules for areas that had not been declared emergencies or major disasters by the State or Federal government. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety, and temporary-use incinerators may be best suited to dispose of debris. We have elected not to regulate incinerators used on a short-term basis to recover from an emergency or disaster under the final OSWI rules, because regulation would hinder the recovery effort and this impact would outweigh the benefits from regulation of the units. Recent events in the Gulf States due to Hurricanes Katrina, Rita, and Wilma have illustrated the importance of immediate recovery action following a disaster. This proactive approach, which addresses the terms for use of a temporary-use incinerator during declared emergencies or disasters, is better than an approach that requires EPA and others to react during or immediately after such an emergency or disaster strikes. We also point out that States and the Federal government have specific procedures that are followed in declaring an area a State of Emergency or a major disaster area. Their procedures involve extensive involvement by local, State, and Federal officials to conduct a preliminary damage assessment, develop debris removal plans, and coordinate and manage disaster assistance activities. Further information on the processes can be found on individual State Web sites and on the Federal Emergency Management Agency (FEMA) Web site (*http://www.fema.gov*). Given that there is already a coordination process and we do not intend to regulate temporary-use incinerators operated for 8 weeks or less, an earlier notification requirement in the final OSWI rules is not necessary or productive.

Finally, in responding to a separate comment regarding air curtain incinerators, we reviewed and clarified the exclusions for which air curtain incinerators may qualify. In doing this review, we realized that air curtain incinerators were not specifically mentioned in the exclusion for temporary-use incinerators used in disaster or emergency recovery efforts. To remedy this, we are clarifying that the temporary-use incinerators used in disaster or emergency recovery efforts exclusion includes air-curtain incinerators used for these purposes. We realize that air curtain incinerators may be particularly useful in disaster recovery efforts, and intend that they may also qualify for this particular exclusion.

*Control Feasibility.* Another commenter contended that EPA has not

explained why it is infeasible for temporary-use incinerators to include air pollution controls or how requiring controls would delay commencement of operation. Therefore, the commenter concluded, EPA has provided no basis for the assumption that controlling emissions from temporary-use incinerators would hinder recovery efforts.

Declared States of Emergency and major disasters are, by definition, serious events. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety. Depending on the type of emergency and the local situation, there may be no reasonable and safe alternatives to incineration. Regulation, under the final OSWI rules, of temporary-use incinerators used for disaster recovery efforts would discourage use of such incinerators, potentially hindering recovery efforts and impairing public health and safety. The emission limits in the final OSWI rules are based on wet scrubbing for any IWI and VSMWC units other than air curtain incinerators burning only clean lumber, wood waste, and yard waste. The annual cost of a wet scrubber and the monitoring, recordkeeping, and reporting required by the rules (including annualized capital cost of the scrubber and monitoring equipment, and annual operation and maintenance (O&M), permitting and reporting costs) may be more than six times the cost of owning and operating an uncontrolled incinerator. Even if the final OSWI rules were to require no add-on control of such incinerators, it is estimated that the annual cost of the testing, monitoring, recordkeeping and reporting required by CAA section 129 could more than quadruple the cost of owning and operating the incinerator. These sharp increases in regulatory compliance costs relative to the current cost of incineration would discourage use of incinerators. Furthermore, as evidenced by the recent recovery efforts due to Hurricanes Katrina, Rita, and Wilma, the water supply, handling and treatment capabilities required to operate the wet scrubber may be unavailable for long periods of time in the disaster areas, while the need for recovery is immediate. In such situations, the incinerator cannot stand idly by while awaiting ancillary services to operate the scrubber.

We also point out that the exclusion for emergency cleanup activities of short duration is not unique to the final OSWI rules. Other CAA programs and rules recognize the need to make allowances for similar situations. For example, the site remediation NESHAP (40 CFR part 63, subpart GGGGG) provide an exclusion for site remediation activities that are completed within 30 consecutive calendar days. The preamble for the proposed rule explained that, "This exemption is intended to apply to contamination commonly caused by a spill where the cleanup is initiated soon after the spill event and is of very short duration (i.e., typically 30 days or less). The purpose of this exemption is to encourage prompt attention to remediating contaminant spills and leakages" (67 FR 49407, June 30, 2002). Similarly, the OSWI exclusion of temporary-use incinerators encourages prompt clean-up of debris from emergencies and disasters and excludes only temporary-use incinerators that operate for a limited period of time within a declared disaster area.

7. Sewage Sludge Incinerators

Two commenters were unsure how the proposed rules treat sludge incinerators. Both commenters requested that EPA clarify if, and how, commercial and municipal sludge incinerators are addressed by the final OSWI standards.

Sewage sludge incinerators (SSI) are a source category that is being addressed under CAA section 112. As early as April 2000, EPA indicated that it no longer intended to regulate SSI under section 129 of the CAA:

> The Agency has decided not to regulate sewage sludge incinerators as a category under Section 129 of the Clean Air Act * * *. The Agency believes that sewage sludge generated by publicly-owned treatment works (POTWs) and combusted in SSIs is "solid waste." However, this sludge is from a municipal source, and not from "commercial or industrial establishments or the general public." Therefore, SSIs that combust this sludge are not "solid waste incineration units" and section 129 does not apply to them. Virtually all of the SSIs that would be candidates for regulation combust sludge from POTWs, and thus are not covered under Section 129.

(Unified Agenda, 65 FR 23459–01 (April 24, 2000).) In addition, EPA's intent to regulate these sources under CAA section 112 was made clear when SSI were included as an additional area source category listed pursuant to CAA sections 112(c)(3) and 112(k)(3)(B)(ii) in the June 26, 2002 **Federal Register** (67 FR 43113). As discussed previously, source categories regulated by CAA section 112 may not also be subject to a CAA section 129 regulation. In previous regulatory activities, EPA was unable to identify any SSI that were major sources. (See 67 FR 6521, February 12, 2002.) Therefore, the entire SSI source category consists of area sources, and will be addressed by the CAA sections 112(c) and 112(k) regulations. Sewage sludge incinerators do not meet the definitions of IWI or VSMWC units in the final OSWI rules and, thus, are not regulated as OSWI units.

8. National Security Incineration Units

In the preamble to the proposed OSWI rules, EPA requested comment on whether a subclass of IWI units that burn national security documents should be excluded from the final OSWI regulations. Three commenters opposed excluding incinerators that burn national security documents from regulation and contended that EPA did not explain or justify the reason to exclude these units. However, another commenter expressed concern that there could be situations in which the only viable alternative for the destruction of classified materials would be the use of an OSWI unit. Another commenter requested EPA provide an exclusion to the final OSWI rules for units used for sanitization of classified or otherwise sensitive materials by the U.S. Armed Forces, the Department of Energy, and other similar agencies.

We have determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. We have determined that an outright exclusion for other IWI units used to destroy national security materials will not be provided in the final OSWI rules. However, the final rules contain provisions such that individual sources may apply for this type of exclusion as necessary. We understand that mechanical destruction or other alternatives to incineration are available for most, if not all, categories of national security materials. Thus, we think that, as a general matter, few incineration units will meet this exclusion on a long-term basis. Nonetheless, this exclusion is needed for two reasons. First, the government could change the acceptable means of disposing of one or more types of national security materials in the future. Second, there may be unexpected circumstances when mechanical or other alternative means of destruction are temporarily unavailable, requiring the use of backup incineration units during those periods. To be granted an exclusion, a source/governmental entity must demonstrate that the unit is used solely to incinerate national security materials and that a reliable alternative to ensure acceptable destruction of national security materials is unavailable on either a permanent or

temporary basis. An "acceptable" level of destruction is one that meets applicable regulations, guidelines, or instructions for the destruction of national security materials. For existing units, the request must be submitted to the Administrator prior to 1 year before the final compliance date, and the Administrator will either grant or deny the request for exclusion. For new units, the request must be submitted to and approved by the Administrator prior to initial startup. The final rules contain specific provisions for applying for this exclusion.

9. Various Other Applicability Issues

*Cyclonic Burn Barrels.* One commenter asked if cyclonic burn barrels are subject to the OSWI regulations. The commenter recommended that EPA explicitly include these devices as regulated entities subject to all the requirements of the final OSWI regulations.

It was our intent to regulate cyclonic burn barrels that meet the definition of an IWI unit or VSMWC unit under the final OSWI rules. An IWI unit is a combustion unit, regardless of size, located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) that burns solid waste generated at that institutional facility. A VSMWC unit is a combustion unit that has the capacity to burn less than 35 tpd of municipal solid waste collected from residential, commercial, institutional, and industrial sources. We agree that cyclonic barrel burners are a type of incinerator because they provide an enclosure (barrel) in which the waste is burned and include a fan to provide high-velocity air flow and an exhaust outlet, and we did not exclude them in the proposal. To clarify our intent to regulate this type of OSWI unit, we are including "cyclonic burn barrel" as another example of an incinerator design in the final rules' definitions of IWI unit and MWC unit. We would like to note that the final OSWI rules regulate only IWI and VSMWC units. For example, if a cyclonic burn barrel is used at a commercial or industrial facility to burn commercial or industrial solid waste, then it would not be subject to the final OSWI rules.

*Human Crematories.* Two commenters objected to the exemption of human crematories from the proposed rules. Both commenters argued that the incineration of human bodies emits significant quantities of mercury and other hazardous air pollutants. One commenter objected to EPA's conclusion that human bodies are not solid waste and noted that EPA defines solid waste under the SWDA as any "discarded material." The definition also clarifies that a material is "discarded" if it is "burned or incinerated."

Clean Air Act section 129 regulations deal solely with solid waste combustion units. As noted in the preamble to the proposed rules, in considering the nature of human crematories, EPA has determined that the human body should not be labeled or considered "solid waste." Therefore, human crematories are not solid waste combustion units, and are not a subcategory of OSWI for regulation.

We disagree with the commenter's assertions that human bodies are discarded and that CAA section 129 rules must consider a material to be "discarded" if it is "burned or incinerated." The definition of "discarded" referred to by the commenter is found in 40 CFR part 261, which defines "hazardous waste" for the purpose of implementing the hazardous waste program authorized by the SWDA. In defining "hazardous waste," 40 CFR part 261 also defines "solid waste" and elaborates on the meaning of "discarded," which is a term used in the definition of solid waste. However, in doing so, 40 CFR part 261 states explicitly in 40 CFR 261.1(b)(1) that this definition of solid waste is only for the purpose of materials that are hazardous wastes. Much of the complexity and specificity of the 40 CFR part 261 definitions is needed to assure that hazardous waste is properly identified, tracked, transported, and disposed of, and is not inappropriately discarded or abandoned. The 40 CFR part 261 details on the meaning of solid waste and discarded are not found in solid waste definitions within the Resource Conservation and Recovery Act (RCRA) rules pertaining to nonhazardous wastes (e.g., 40 CFR part 240 through 40 CFR 259). The regulatory definitions of "solid waste" and "discarded" found in 40 CFR part 261, therefore, do not apply to nonhazardous solid wastes. Section 129 of the CAA regulates only nonhazardous solid wastes. As described in previous **Federal Register** notices pertaining to the proposed and final CISWI rules (64 FR 67104, November 30, 1999 and 65 FR 75342, December 1, 2000) EPA has adopted, under the joint authority of the CAA and RCRA, a definition of solid waste that is used solely to identify nonhazardous solid waste for the regulatory programs authorized by CAA section 129, such as the final CISWI and OSWI rules. The definition of discarded cited by the commenter is not applicable to CAA section 129 rules. However, as stated in the preamble to the proposed OSWI rules, if EPA or States determine in the future that human crematories should be considered for regulation, they would be addressed under other authorities.

*Animal Crematories.* One commenter expressed support for the proposed decision to exclude animal crematories as a regulated subcategory of the proposed OSWI rules and supports the proposed exclusion of pathological waste incineration units. The commenter pointed out that the other alternatives to incineration, such as rendering, burial, composting or feeding of the carcass to exotic animals does not address the need for disposal of animal carcasses with an infectious disease. Another commenter contended that animal crematories are solid waste incineration units that must be regulated under CAA section 129.

EPA has not changed our decision to exclude animal crematories and pathological waste incineration units, based on our analysis of their emissions and the adverse impacts that would occur if these units were regulated under the final OSWI rules, as fully described in the preamble to the proposed rules and in the response to comments document.

*Additional Possible Subcategories of OSWI Units.* In the preamble to the proposed rules, we requested comment on whether other subclasses of OSWI units existed and if any special and/or extenuating circumstances existed that warranted their exclusion from regulation under OSWI. We received only one communication related to this request.

The U.S. Coast Guard (USCG) informed EPA that they were concerned that the rules, as proposed, could be interpreted to include incinerators located on ships. According to the USCG, some of its largest cutter classes have small shipboard solid waste incinerators that are used to dispose of solid waste generated aboard ship while the ship is at sea. The USCG indicated that they believed these incinerators should not be subject to the final OSWI rules.

It was never EPA's intent to regulate incinerators aboard USCG patrol ships or other ships, and EPA's analyses supporting the final OSWI rules have not included information about shipboard incinerators. Thus, EPA has not only replaced the definition of "institution" with "institutional facility" to be consistent with terminology used elsewhere in the final OSWI rules, but we also have defined

"institutional facility" to apply to land-based incinerators.

We note that the use of wet scrubbers on ships raises the question of whether it is even technically feasible to locate wet scrubbers on ships (including the availability of fresh water for the scrubber systems), and, moreover, begs the question of how the ships would then dispose of the wastewater generated by the scrubbers. If a shipboard incinerator could not meet the standards, the incinerator would have to shut down. Yet, many ships have onboard incinerators to dispose of the solid waste generated on these ships while at sea (e.g., patrolling U.S. borders), without having to come into port or otherwise change their route in order to dispose of the solid waste using an alternative means.[2]

*B. Definitions*

1. "Clean Lumber" and "Wood Waste" Definition

Two commenters suggested that the definitions of "clean lumber" and "wood waste" found in 40 CFR 60.2977 and 40 CFR 60.3078 should explicitly exclude manufactured wood products containing adhesives. Examples of such products include plywood, particle board, flake board, and oriented-strand board (OSB). One commenter noted that questions regarding whether manufactured wood products are considered "clean lumber" or "wood waste" continue to arise, and recommended that EPA improve the final rules by specifically excluding these adhesive-treated wood products from the definitions of "clean wood" and "wood waste."

These definitions are important in the final OSWI rules because there are reduced requirements for air curtain incinerators that burn only clean lumber or wood waste. We agree with the commenter, and our intent was to exclude wood products manufactured with adhesives and resins from the definitions of "clean lumber" and "wood waste." The proposed definition of "clean lumber" excluded wood that has been painted, stained or pressure-treated; and the proposed definition of "wood waste" limited wood waste to "untreated" wood and wood products, but did not specify the meaning of "untreated." Adhesives, like paints, can contain hazardous pollutants and we did not intend for air curtain incinerators burning these materials to qualify for the reduced requirements. To clarify our intent, we have expanded the second sentence in the definition of clean lumber to state, "Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board)." We have also revised the definition of "wood waste" by adding a fourth item to the list of items that wood waste does not include: "(4) Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board)."

2. Municipal Solid Waste

One commenter noted that the definition of MSW in the proposed OSWI regulations is not the same definition used in previous CAA section 129 regulations (i.e., MWC regulations found in 40 CFR part 60, subparts Ea, Eb, AAAA, and BBBB). The commenter understands that EPA is using language from CAA section 129(g)(5) for the definition of MSW, but disagreed with the proposal's use of "collected from" in the definition of MSW. The commenter noted that units at apartment complexes or retail stores, or units located at industrial sites burning office paper are not covered as VSMWC units because of the "collected from" language in the proposed OSWI rules, and they are not covered by the final CISWI rules. The commenter contended that this would leave a very important type of incinerator unregulated, noting especially incinerators located at grocery stores.

We are retaining the proposed definition of "municipal solid waste" in the final OSWI rules to be consistent with CAA section 129, which defines "municipal waste" as "refuse (and refuse derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber and other combustible materials and non-combustible materials such as metal, glass and rock * * *." To be a VSMWC unit that is subject to the final OSWI rules, a unit must combust waste that is "collected from" multiple establishments. Under this definition, incinerators owned/operated by commercial businesses, such as grocery stores or apartments, that burn waste generated on site rather than collected from multiple establishments are not considered VSMWC units and are not covered by the final OSWI rules.

As the commenter points out, the final CISWI rules (40 CFR part 60, subparts CCCC and DDDD) currently exclude units burning MSW as defined in the final large and small MWC rules (40 CFR part 60, subparts Ea, Eb, AAAA, and BBBB). These other rules do not include the "collected from" language in their definitions of MSW. Therefore, the final CISWI rules currently exclude some industrial and commercial units that burn wastes such as paper, cardboard, and food wastes that are generated on site but are not associated with the manufacturing process. The commenter is concerned that such units will not be subject to any CAA section 129 rules. As stated in the preamble to the proposed OSWI rules (69 FR 71480, December 9, 2004), under the CAA section 129 definition of "municipal waste," small incinerators that are located at commercial businesses (such as stores, restaurants and apartments) or industrial sites are not VSMWC units because they do not burn waste which has been "collected from." Such units are properly addressed under the final CISWI rules, because of their location at commercial and industrial sites. EPA intends to address regulation of such combustion units under future revisions to the final CISWI rules.

*C. MACT Floors and Emission Limits*

1. MACT Floors

*New Units.* One commenter stated that EPA must base floors on emission levels achieved by the best controlled unit, not on the technology that the unit uses or emission levels that EPA deems achievable with such technology, and contended that EPA did not consider the effect of waste composition on a unit's performance when setting the MACT floor for new units. The commenter argues that because EPA has not demonstrated that medical waste is comparable to the waste combusted in a VSMWC or IWI unit, EPA has not supported the assumption that the average performance of a medical waste incinerator equipped with a wet scrubber is representative of the actual performance of the best performing VSMWC or IWI unit.

In the preamble to the proposed rules, we noted that EPA does not have emissions test data for the OSWI units

[2] In order to effectively police U.S. borders, help secure national security and carry out research activities, many of these ships must have the maximum flexibility to stay at sea as long as is necessary to accomplish their mission, with a minimum of disruption, such as having to come into port to dispose of solid waste.

in the OSWI inventory. Therefore, we were unable to determine the best controlled OSWI unit based on OSWI emission levels. However, our OSWI inventory indicated that only one OSWI unit contained an add-on control device. This control device is identified as a "medium efficiency wet scrubber." EPA utilized information on control devices to help categorize the category of similar units whose actual emissions data would then be used to set the floor (i.e., the best performing similar unit, or an incinerator equipped with a medium efficiency wet scrubber in this case). As we discussed in the preamble to the proposed rules, we do have emissions test data for HMIWI units, which are similar to OSWI units. Our emissions data for HMIWI indicates whether the unit is equipped with a wet scrubber, but does not indicate the efficiency (e.g., low, medium, or high) for which the scrubber is designed. Therefore, to develop emission limits that are representative of what a medium efficiency wet scrubber can achieve, we averaged all emissions data for HMIWI units equipped with wet scrubbers. In using this approach, we have also accounted for the variability of emissions testing for waste combustion units. Any single emission test is merely a "snapshot" of the emission level from the unit. The same unit tested a month later may have a lower or higher emission rate. Thus, selecting the best single emission test (the lowest "snapshot") does not reflect the emission limit that is continuously achieved over time. Taking the average of emission tests from multiple units of similar design with wet scrubbers accounts for the inherent variability of the data. By taking the average of all performance data, we have considered data from wet scrubber-equipped units that are both better than, and worse than, the proposed emission limits, but should nonetheless be continuously achieved by a unit equipped with a medium efficiency wet scrubber. For perspective, we also note that this floor analysis approach results in limits for most pollutants that are more stringent than the limits for HMIWI units and large and small MWC units.

Although the data we used to develop the emission limits are from HMIWI units, the commenter does not contend that HMIWI and OSWI units are not similar in size, design, or operation. While the commenter argues that medical waste may not be comparable to MSW or institutional waste, they do not provide any data to support their concern or to demonstrate that emissions from OSWI units are lower than emissions from HMIWI units with the same control technology. To address these concerns, we have further considered the compositions of medical waste and MSW. Both types of waste contain a range of materials including paper, plastics, metal, glass, food waste, and other materials. However, within both categories there can be a wide variety of composition depending on the specific sources that generated the waste, geographic location, and any separation practices used prior to combustion. Given the variability within each waste type, we cannot conclude that incinerating one or the other would result in higher emissions. We find the wastes to be generally similar in composition based on the general types of materials contained in the waste and the very limited data available on the proportions of paper, plastic, metals, and other materials contained in the waste. Considering the similarities in combustion unit size, design, operations, and waste composition, we have determined that the emission levels actually achieved by HMIWI units equipped with wet scrubbers are an appropriate basis for setting the MACT floor for new OSWI units. Therefore, in the absence of emissions data on OSWI units, we have determined that HMIWI units are a similar source and we plan to continue to use the emission limits based on the HMIWI data as proposed, with the exception of revisions to the CO and HCl emission limits that were necessary to address other comments (discussed later in this section).

*Existing Units.* In a comment similar to that for new units, one commenter stated that floors for existing units do not reflect the average emission level achieved by the best performing 12 percent of units in each category or subcategory. The commenter argued that EPA's MACT floor approach for existing units ignored the effect of waste input on emissions performance. As an example, the commenter specifically points out that the lead floor level of 4,300 μg/dscm would be worse than the actual performance of an OSWI unit burning waste that did not contain lead, and that EPA has not provided any reason to believe that these units would burn any waste containing that level of lead.

As previously stated, we do not have data on actual emissions from OSWI units, thus we had to use emissions data from similar, existing units. EPA utilized information on control devices used at the best performing 12 percent of existing OSWI units not to set the floor number itself (as the commenter suggests), but to help characterize the category of similar units whose actual emissions data would then be used to set the floor—small, uncontrolled, modular/starved air MWC units.

With regard to the commenter's contention that, in determining the floor, EPA did not consider the effect of waste input on emissions performance, OSWI units combust diverse and heterogeneous mixtures of wastes. For example, VSMWC units burn MSW that contains metals including lead in varying amounts, and materials separation techniques cannot achieve complete removal of lead or other compounds. In setting emission limits for large and small MWC units under CAA sections 129 and 111, EPA examined materials separation techniques and proposed materials separation requirements, but ultimately decided not to require materials separation prior to combustion. We stated that "the variable and heterogeneous nature of municipal solid waste makes quantification of such emission reductions associated with removal of various materials technically infeasible" (56 FR 5496, February 11, 1991). Subsequent revisions of the section 129 large and small MWC rules in 1995, 1997, and 2000 also did not require materials separation or use it as the basis for determining the MACT floors. The same waste variability and materials separation considerations and constraints that applied in development of the final large and small MWC rules also apply to the final OSWI rules.

We acknowledge that there are limited emissions data available for the floor level of control (i.e., uncontrolled two-chamber incineration units), but also point out that we have gone beyond the floor in the selection of emission limits based upon the use of a wet scrubber. From a practical standpoint, any potential change in the floor emission levels would not have any effect on the final emission limits selected. Therefore, we do not see a need to re-evaluate the floor emission levels used in our prior analysis because it would most likely not lead us to establish different MACT limits.

*Combined Subcategories.* In the preamble to the proposed rules, we requested comment on whether we should combine the two subcategories (i.e., IWI and VSMWC) and determine a single MACT floor and emission limits for new OSWI units. Likewise, we made a similar request regarding combination of subcategories for existing units. We did not receive any public comments in response to these requests. We have not changed the subcategories or approach to determining the MACT floors.

2. Carbon Monoxide

Two commenters considered the CO emission limit of 5 parts per million (ppm) (at 7 percent oxygen ($O_2$)) to be unrealistically low. Another commenter contended that a medium efficiency wet scrubber cannot reduce CO to 5 ppm, as CO is not water soluble and water will not affect the concentration.

We agree with the commenters' assertions that a wet scrubber is not an effective control device for CO emissions. As we have discussed previously, we used emissions test data for wet scrubber-equipped HMIWI units to develop the proposed emission limits for new and existing OSWI units. As one commenter observed, the CO emission limit for HMIWI is 40 ppmv. The HMIWI emission limit was based on data from CO continuous emission monitoring systems (CEMS), and was determined to be the emission limit continuously achieved on a 12-hour rolling average basis. However, when we developed the proposed OSWI emission limits, we used performance test data from HMIWI units instead of CEMS data to develop CO and other pollutant emission limits. Although this approach for CO was simple and consistent with the other pollutants, it was not adequate to address the large quantity of data, including its variability, that was considered when the HMIWI CO emission limit was developed. Because CO is the only pollutant for which the final OSWI rules require CEMS for existing and new units, we are revising the emission limit to better account for the large volume of data generated by the CEMS and the amount of inherent variability that occurs when generating continuous data. The new CO limit is 40 ppmv over a 12-hour rolling average. This limit is consistent with a previously promulgated HMIWI emission limit for a source category similar to OSWI, and is also the lowest CO emission limit of any of the CAA section 129 rules.

3. Hydrochloric Acid

One commenter believes the proposed HCl standard is unachievable and should be revised to no lower than 20 ppm because EPA Method 26A generally is not adequate for demonstrating compliance with an HCl standard below 20 ppm at sources with wet scrubbers.

We have considered the commenter's assertion that EPA Method 26A is not adequate for demonstrating compliance with a HCl standard below 20 ppm when sampling sources with wet scrubbers. Although it is not evident that there is an outright problem, we now have a more mature understanding of applicability of EPA Method 26A in certain environments. Therefore, we acknowledge that a tester may need to take certain precautions to ensure that there is no bias when sampling streams with HCl concentrations at or below the 3.7 ppmv emission limit as proposed. For example, there is the need to precondition the filter with stack gas because the filter may absorb, adsorb, or react with some of the HCl in the stack gas resulting in a number biased low. Water droplets may also affect the results of the test. Additional procedures may be required to eliminate any droplets within the sampling train. As we discussed previously, we used test data from wet scrubber-equipped HMIWI units to develop the proposed emission limits for OSWI units. Unfortunately, we do not know if the personnel conducting the HMIWI compliance emission tests that we used to develop the 3.7 ppmv proposed OSWI emission limit took special precautions to prevent a low bias when sampling and testing for HCl. To address this uncertainty in the data and the commenter's concerns, we are amending the HCl emission limits in the final OSWI rules to 15 ppmv. This is the same limit contained in the final HMIWI rules, and HMIWI units equipped with wet scrubbers are demonstrating compliance with a 15 ppmv limit.

We also note that there were no public comments received on testing concerns for the 15 ppmv emission limit in the final HMIWI rules. Although this is higher than the proposed HCl emission limit, it is the lowest HCl emission limit of any CAA section 129 rule and is clearly achievable by wet scrubber-equipped units similar to OSWI units. To ensure that there is no bias in compliance test data, we are including provisions in the final OSWI rules that require sources to condition the filter before testing, and use a cyclone and post test purge if water droplets may be present.

*D. Title V Operating Permits*

1. Air Curtain Incinerators

We received a number of comments regarding air curtain incinerators and the title V operating permit requirements of the proposed OSWI rules. The majority of these pertained to air curtain incinerators burning only wood waste, clean lumber, and yard waste. For instance, several commenters contended that the requirement for air curtain incinerators burning only wood waste, clean lumber, and yard waste to obtain a title V operating permit is not justified either legally or in terms of environmental outcome and is inconsistent with previously promulgated solid waste combustion regulations.

We disagree with the commenters' conclusions and so noted in our response to similar comments in the final rule for the CISWI Federal plan (68 FR 57518, October 3, 2003). During proposal for the CISWI Federal plan, we clearly stated our interpretation that the CAA requires permitting under title V for sources subject to rules written pursuant to CAA sections 129 and 111. As is the case here, commenters questioned our position on this matter by contending that by not specifically referring to title V requirements in prior rulemakings, we were indirectly expressing our position that title V regulations were not applicable. To the contrary, we knew that 40 CFR part 70 or 40 CFR part 71 title V requirements would apply to any rules written under CAA section 129 or 111 and presumed no additional language was needed in those rules to convey the need to meet the title V requirements. Given prior comments to the effect that such presumptions were misplaced, we responded by first saying that we were specific in the proposal about the need for title V operating permits for air curtain incinerators subject to the CISWI Federal plan for the purpose of clarifying that need. We did so in order to clearly present EPA's view of such sources' title V obligations, and to answer questions such as those voiced by the prior commenters due to the absence of such specific language in the CISWI emission guidelines and NSPS. Those prior comments are similar to the comments now under discussion. At 68 FR 57527, we stated that EPA has consistently maintained that operating permits are needed for air curtain incinerators subject to NSPS and to State plans drafted pursuant to emission guidelines. However, communications we received following promulgation of the CISWI emission guidelines and NSPS pointed to the advisability of specifically clarifying the matter in the preamble to the CISWI Federal plan and in the final rule itself. Thus, to facilitate the application of title V to these sources, we specifically included in the CISWI Federal plan language describing the need for title V operating permits. To further eliminate any doubt as to the need for OSWI air curtain incinerators to obtain title V operating permits, as is the case for all other classes of air curtain incinerators, we clearly restated that requirement in 40 CFR 60.2994, subpart FFFF, as proposed.

Two commenters concluded that the term "solid waste incineration unit" is

defined in CAA section 129(g)(1) to specifically exclude "air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule." As a result, this means that permitting or other requirements applicable to "solid waste incineration units" in CAA section 129 do not apply to such air curtain incinerators in the same way that they do not apply to hazardous waste combustors, materials recovery facilities, and qualifying small power production facilities, all of which also are specifically excluded from the definition of "solid waste incineration unit." In addition to questioning EPA's use of authority under CAA section 129 to require title V operating permits, commenters were cognizant that in the **Federal Register** notice promulgating the CISWI Federal plan that we had also expressed an opinion that section 129 also invokes authority of CAA section 111, thus triggering the provisions of CAA section 502. Section 502 of the CAA requires that sources subject to section 111 must obtain title V operating permits. Commenters expressed a number of opinions about the interplay of CAA section 502 to the purpose of trying to make a case that the section 502 provision for exempting classes of nonmajor sources should be applied in the case of OSWI air curtain incinerators.

EPA believes that a facility should have a title V operating permit in order to avail itself of the air curtain incinerator exclusion. Absent this exclusion and demonstrated compliance with the opacity limit therein, air curtain incinerators would be "solid waste incineration units" and, therefore, subject to a plethora of requirements under CAA section 129, including the requirement to obtain a title V operating permit. The initial step in effectuating the exemption is for EPA to use available statutory authority to establish applicable opacity limits. In this case, EPA clearly stated in the preamble to the proposed OSWI rules (69 FR 71482, December 9, 2004) that it is relying on the authority of CAA section 129 to establish these limits. Once EPA has established applicable opacity limits, it must have a mechanism for tracking compliance with the limit(s) and with the restrictions on the types of materials the air curtain incinerator unit in question can burn. The mechanism available through section 129 is an operating permit issued in accordance with title V of the CAA. Congress clearly evidenced an intent to require all units subject to requirements established pursuant to CAA section 129 to obtain a title V operating permit in enacting section 129(e) of the CAA, thus it is appropriate for EPA to use such permits to ensure that units which claim to be entitled to the benefit of the provision in section 129(g)(1) are in fact so entitled.

Two commenters requested that EPA acknowledge a distinction between air curtain incinerators that are "portable" and those that are "stationary." One commenter noted that in the States that are using this approach, the "portable" unit is brought to a site and used on waste material generated on that site and a "stationary" unit has waste material brought to the unit from off site. The commenter suggested that "portable" applications should be subject to a simple permitting process that is no more complicated than an open burning permit. The other commenter asked that EPA clarify its position on whether air curtain incinerators are temporary or stationary sources.

First, regardless of whether an air curtain incinerator subject to CAA section 129 is transported from site to site or is used at the same site on a continuous basis, it is considered a stationary source under 40 CFR part 70 and 40 CFR part 71 and is required to obtain a title V operating permit. Air curtain incinerators that are transported from site to site are considered temporary sources as long as their operations are temporary and they are moved at least once during the term of their permits. (See 40 CFR 70.6(e) and 40 CFR 71.6(e).) Temporary-use incinerators (whether they are air curtain incinerators or other types of incinerators) used in disaster recovery and that meet the requirements of 40 CFR 60.2969 or 40 CFR 60.3061 are not, however, required to obtain a title V operating permit. This is because the exclusion-allowing provisions noted above (or a section 111(d) plan developed pursuant to them) do not trigger the requirement to apply for a title V permit. If the requirements in 40 CFR 60.2969 or 40 CFR 60.3061 are met, only temporary-use incinerators that are otherwise subject to title V permitting would be required to apply for and obtain a title V permit.

As to the commenter's concern regarding the process for permitting air curtain incinerators which are temporary sources, a permitting authority may issue a single permit to the owner or operator of these incinerators, thereby authorizing emissions by the same source owner or operator at multiple temporary locations. (See section 504(e) of the CAA and 40 CFR 70.6(e) and 40 CFR 71.6(e).) In order to track the location of temporary sources, the owners or operators of these sources must notify the relevant permitting authority at least 10 days in advance of each change in location. For more information regarding the requirements for temporary sources, see the statutory and regulatory cites noted above.

As mentioned earlier, there were a number of comments on air curtain incinerators and title V operating permits. While the above discussion covers the majority of the issues regarding these units and title V requirements, we encourage interested parties to review the response to comments document for a complete discourse on the title V comments we received and our response to those comments.

2. Unit Closure and Title V Operating Permits

One commenter expressed a concern that units planning to close within the 3 years allowed by the proposed emission guidelines would potentially have to apply for title V operating permits. The commenter asked EPA to clarify in the final rules that sources either need to close by the time their title V permit application is due or that a title V permit application is not required for sources closing by the final compliance date.

The timing of title V permit application deadlines is established by law (see sections 129(e), 503(c), 503(d), and 502(a) of the CAA). As such, EPA has no authority to exempt from this requirement sources planning to close. Sources planning to close after the permit application deadline may continue operations until the closure deadline as long as the permit application deadline is met. Sources cannot legally operate after the initial title V permit application deadline without having submitted a complete title V application by this deadline (see CAA section 503(c) and 40 CFR 70.5(a)(1)(i), 71.5(a)(1)(i), 70.7(b), and 71.7(b)). Sources planning to close can explain the procedures and timing associated with their closures in their title V permit applications. Such an explanation will provide the permitting authority with much needed information and will allow the permitting authority to take an anticipated closure into account as it drafts the source's title V permit.

*E. Testing*

One commenter noted that air curtain incinerators normally operate for a few weeks at any one project site. For these units, the commenter noted that the proposed rules require an initial test for opacity within 180 days after the final compliance date and annual tests to be conducted no more than 12 months following the date of the previous test. For stationary units or units frequently in operation, this may be acceptable, but for units that may go months or years between uses it is not clear when the opacity test would be required. As an addendum, the commenter also asked who would be responsible for conducting the test because these units are usually rented.

We acknowledge the commenter's concern regarding annual testing requirements for air curtain incinerators that may not be used for months or years. To address this, we are amending the testing requirements for air curtain incinerators that burn only wood waste, clean lumber and yard waste to require opacity testing upon startup if the unit has been unused and out of operation for more than 12 months following the last opacity test.

Regarding the commenter's question on testing responsibility if the unit is rented, we would generally expect the owner (lessor) of the unit to perform testing and maintain records of compliance testing for the unit being rented. In this situation, the operator (lessee) is responsible for obtaining all necessary documentation (e.g., performance test data) demonstrating that the unit is in compliance from the owner (lessor) and maintaining the documentation on site with the air curtain incinerator. The operator (lessee) in all situations is responsible for correctly operating the unit, burning only allowable materials, being aware of all compliance requirements (i.e., testing, monitoring, recordkeeping and reporting), and making sure the unit is in compliance while operating the unit. However, given the various arrangements that may exist between owners and operators, different lengths of time a unit may be operated at a particular site, etc., EPA and State regulatory and enforcement agencies have discretion to determine which of the parties is responsible for compliance activities or noncompliance issues on a case-by-case basis.

*F. Impacts*

One commenter contended that EPA's use of national average costs and "typical" units in determining impacts may have overlooked the impact that the OSWI rules would have on small local governments, school districts and small nonprofit organizations. The commenter expressed concern that EPA's certification that the rules, as proposed, will not have a significant economic impact on a substantial number of small entities is not based on an adequate analysis of IWI units operated by small entities.

The final OSWI rules provide exclusions for some sources that may find it unreasonably costly to comply with the rules or utilize alternative disposal options. These exclusions include such sources as rural IWI units and incinerators in isolated areas of Alaska. These, and the other exclusions, should provide relief for many small entities for which a reasonable disposal alternative is unavailable. For example, a small, rural school may apply for the rural IWI exclusion if they are located more than 50 miles from the boundary of the nearest MSA and can demonstrate that suitable waste disposal alternatives do not exist or are economically infeasible considering their budget. A small school located in an urban area will most likely find that alternative disposal options are readily available, and that they would incur no additional cost or perhaps a slight savings by shutting down their waste combustion unit. The exclusions provided should adequately cover those certain situations where feasible alternatives to incineration do not exist.

As for areas where alternatives to incineration do exist, we have found that the typical cost of incineration is the same as, or greater than, that of using a landfill or sending waste to a larger MWC (see tables 5 and 7 of OSWI Unit Control Options and Costs memorandum, Docket item EPA–HQ–OAR–2003–0156–0012). An additional, more detailed analysis of over 150 OSWI units was conducted to verify that this is the case. The analysis used parameters appropriate for each OSWI unit, including incinerator throughput, distance to nearby landfills, and landfill tipping fees. The analysis confirmed our initial belief that in the vast majority of cases an OSWI facility would incur no additional cost when switching to a landfill. This was also true for small entities. Information about this analysis is in the docket (see Impacts of Other Solid Waste Incinerator Rule on Affected Small Entities, November 2005).

There are several likely reasons that existing OSWI units have continued to operate rather than close and use a less expensive waste disposal method. Some sources may simply be unaware of other viable waste disposal options and their costs. The attention of other sources may be focused on their day-to-day operations, of which the incineration of waste represents a small piece, both with respect to overall operations and budget. Until an unanticipated event, such as a significant maintenance or repair expense or, in this instance, new regulatory requirements, causes a source to focus on the question of whether to continue to incinerate versus turn to another waste disposal method, the source may not have a reason to consider whether they are using the most economical waste disposal method. Moreover, some sources may not have considered other waste disposal options in lieu of incineration due to concerns regarding the nature of their waste stream (e.g., confidentiality or liability concerns).

As we point out in the preamble to the proposed rules, the OSWI population has been steadily declining over the past several years, and this trend would likely continue in the absence of an OSWI regulation. To ensure that the affected sources were aware of the proposed rules, EPA sent fact sheets to 361 of the existing OSWI units in our inventory (we were unable to determine the mailing address for the remaining 11 units in our inventory). The fact sheets explained the proposed regulations, the anticipated costs and impacts to their facilities, and how they could submit comments. None of these facilities submitted comments on the proposed rules and, in fact, about one-third of these facilities informed us that they no longer own or operate an incineration unit. In addition to the letters to the existing sources, we also identified 125 trade organizations and interest groups that represented potential OSWI owners/operators, such as school system administrators, private school headmasters, correctional facility administrators, religious organizations, associations of city and county governments, etc. and sent them copies of the fact sheet. None of these interest groups submitted comments on the proposed OSWI rules or on the cost or other impacts EPA anticipated due to the rules. We believe that this closure trend in absence of regulation exhibited by existing OSWI units, paired with the lack of comment on our impacts analysis by the soon-to-be regulated community, supports our analysis that it is often more economical to shut down OSWI units and use an alternative waste disposal method, and, therefore, that the final rules do not pose a significant impact to a substantial number of small entities.

However, to further address the commenter's concern, small entity

outreach surveys were sent to eight entities associated with schools (e.g., State-affiliated department of education, office of school facilities). The surveys requested information regarding the use of solid waste incinerators at schools the entities represent or are associated with. All responses, with one exception, indicate that incinerators are not being used by the respondents. The one exception regards an institution that owns/operates pathological waste incinerators, which are excluded from regulation under the subparts.

## V. Impacts of the Final Rules

### *A. What are the impacts for new units?*

As stated in the preamble to the proposed rules, information provided to EPA indicates that no or negative growth has been the trend for OSWI units for the past several years. The information indicates that this trend is expected to continue even in the absence of a regulation. Furthermore, as our experience with other CAA section 129 regulations has shown, sources will likely respond to the final rules by choosing not to construct new waste incineration units and will utilize alternative waste disposal options rather than incur the costs of compliance. The only potential new units identified by a public commenter were a type of unit that, as described by the commenter, would be an industrial unit rather than an OSWI unit or would qualify for the exclusion for units in isolated areas of Alaska.

Considering this information, EPA does not anticipate the construction of any new OSWI units that would be required to meet the emission limits. Therefore, EPA expects no impacts of the final NSPS for new units. However, for the sake of demonstrating that emissions reductions would result from the NSPS in the unlikely event that a new unit is constructed, EPA presented the expected emissions reductions for four OSWI model plants in the preamble to the proposed rules (69 FR 71490, December 9, 2004).

Since proposal, the emission limits for CO and HCl have been revised in response to comments, which result in different estimated emissions reductions than those that were shown at proposal. The expected emissions reductions for four OSWI model plants have been recalculated and are shown in table 3 of this preamble. There were no changes to the estimated cost, water, solid waste, and energy impacts on new OSWI units since proposal.

TABLE 3.—EMISSIONS REDUCTIONS ON A MODEL PLANT BASIS

| Pollutant | Emission reduction for OSWI model plants tons per year (tpy) | | | |
|---|---|---|---|---|
| | 1 tpd capacity | 5 tpd capacity | 15 tpd capacity | 30 tpd capacity |
| Cd | $3.8 \times 10^{-4}$ | $1.9 \times 10^{-3}$ | $5.6 \times 10^{-3}$ | $1.1 \times 10^{-2}$ |
| CO | $1.5 \times 10^{-2}$ | $7.5 \times 10^{-2}$ | 0.22 | 0.45 |
| Dioxins/furans | $3.5 \times 10^{-7}$ | $1.7 \times 10^{-6}$ | $5.1 \times 10^{-6}$ | $1.0 \times 10^{-5}$ |
| HCl | 0.97 | 4.7 | 14 | 28 |
| Pb | $5.4 \times 10^{-3}$ | $2.6 \times 10^{-2}$ | $7.8 \times 10^{-2}$ | 0.16 |
| Hg | $5.6 \times 10^{-4}$ | $2.7 \times 10^{-3}$ | $8.2 \times 10^{-3}$ | $1.6 \times 10^{-2}$ |
| $NO_x$ | 0.28 | 1.4 | 4.1 | 8.2 |
| PM | 0.26 | 1.3 | 3.8 | 7.7 |
| $SO_2$ | 0.69 | 3.4 | 10 | 20 |
| Total | 2.2 | 11 | 33 | 65 |

### *B. What are the impacts for existing units?*

Information provided to EPA indicates that many existing OSWI units have closed in recent years. In fact, since proposal we have learned that at least one-third of the existing OSWI units in our inventory are no longer operating. As we stated at proposal, this trend is expected to continue even in the absence of a regulation. Furthermore, as our experience with other CAA section 129 regulations has shown, sources will likely respond to the final OSWI rules by choosing to shut down existing waste incineration units and will utilize alternative waste disposal options rather than incur the costs of compliance.

EPA's objective is not to encourage the use of alternatives or to discourage continued use of VSMWC units or IWI units; rather EPA's objective is to adopt emission guidelines for existing OSWI units that fulfill the requirements of CAA section 129. In doing so, the primary outcome associated with adoption of these emission guidelines is projected to be an increase in the use of alternative waste disposal and a decrease in the use of VSMWC units and IWI units. Consequently, EPA acknowledges and incorporates this outcome into the analyses of cost, environmental, and energy impacts associated with the emission guidelines, as discussed in the preamble to the proposed rules (69 FR 71490, December 9, 2004).

To account for the existing OSWI unit closure information (123 facilities indicated after proposal that they no longer own or operate an OSWI unit), we have reanalyzed the national emissions, cost, energy, and solid waste impacts presented in the preamble to the proposed rules.

1. What are the changes to the air impacts since proposal?

As discussed earlier, emission limit values for CO and HCl have been revised since proposal due to public comments. EPA then revised emission reduction estimates for each model unit, which are presented in table 3 of this preamble. Furthermore, as discussed above, EPA has learned since proposal that 123 of the existing OSWI units in our inventory at proposal were already closed. Both of these changes affected the estimated national emissions reductions presented in table 8 of the preamble to the proposed rules (69 FR 71491, December 9, 2004). Therefore, these emission reduction estimates were recalculated and are presented in table 4 of this preamble. As shown, total emissions reductions would be over 1,900 tpy if all the remaining existing units in the OSWI inventory complied with the emission guidelines by adding controls.

TABLE 4.—NATIONAL EMISSIONS REDUCTIONS IF ALL EXISTING OSWI UNITS COMPLY WITH THE EMISSION GUIDELINES

| Pollutant | Emission reduction (tpy) | | |
|---|---|---|---|
| | VSMWC | IWI | Total |
| Cd | $6.1 \times 10^{-2}$ | 0.27 | 0.33 |
| CO | 2.4 | 11 | 13 |
| Dioxins/furans | $5.6 \times 10^{-5}$ | $2.5 \times 10^{-4}$ | $3.0 \times 10^{-4}$ |
| HCl | 154 | 684 | 837 |
| Pb | 0.85 | 3.8 | 4.6 |
| Hg | $8.9 \times 10^{-2}$ | 0.40 | 0.49 |
| $NO_x$ | 45 | 199 | 245 |
| PM | 42 | 185 | 227 |
| $SO_2$ | 110 | 488 | 598 |
| Total | 353 | 1,572 | 1,925 |

However, as we stated in the preamble to the proposed rules, EPA anticipates that most existing OSWI units will elect to shut down and utilize alternative waste disposal options (e.g., send waste to a landfill or a large or small MWC unit). If the remaining existing OSWI units closed and the waste was sent to a landfill, the anticipated emissions reductions would be over 400 tpy for VSMWC units and over 1,800 tpy for IWI units, which totals over 2,200 tpy for all OSWI units. These reductions occur despite a slight increase in landfill emissions due to the additional waste being landfilled rather than incinerated. By using EPA's Landfill Gas Emission Model (LandGEM), we calculated an increase of 27 tpy of emissions of the regulated pollutants would occur from landfills if all OSWI units closed and the waste was sent to landfills. However, as stated above, this results in net emissions reductions of 2,200 tpy from closure of all OSWI units.

2. What are the changes to the water and solid waste impacts since proposal?

At proposal, EPA estimated that the water impacts of the OSWI rule would be negligible. We have not changed this assessment of water impacts. At proposal, we estimated that the national OSWI population is used to dispose of approximately 85,000 tpy of solid waste. As mentioned before, we anticipate that most, if not all, OSWI units will shut down and the waste will be disposed of in alternative ways. At the time, we concluded that the amount of additional waste that would be sent to landfills due to adoption of the emission guidelines is insignificant. Due to the information we have received on OSWI unit closures since proposal, we have revised our estimate to approximately 60,000 tpy of waste being disposed of in OSWI units. This revision results in even less potential solid waste being diverted to landfills and large or small MWC units due to promulgation of the emission guidelines. For perspective, over 100 million tpy of municipal waste is disposed of in landfills. Therefore, we continue to maintain that the amount of additional waste that will be sent to landfills is insignificant.

3. What are the changes to the energy impacts since proposal?

At proposal, we concluded that the energy impacts would be negligible since we anticipated that most units would shut down rather than install and operate wet scrubbers. Since proposal, our inventory of existing OSWI units has decreased. Therefore, our assessment of negligible energy impacts at proposal remains unchanged.

4. What are the changes to the cost and economic impacts since proposal?

At proposal, EPA's analysis showed that the national total costs for all existing OSWI units to comply with the emission guidelines would be approximately $63 million a year. As discussed previously, we have learned that 123 of the existing OSWI units in our inventory at proposal are permanently shut down. The revised national total cost for the remaining existing OSWI units to comply with the emission guidelines is approximately $42 million.

The remainder of our cost and economic impact discussion in the preamble to the proposed rules (69 FR 71491, December 9, 2004), however, is unaffected by the revised national cost estimate, and remains valid for the final emission guidelines. As previously stated in this preamble, as well as in the preamble to the proposed rules, the cost of landfilling is less than the cost of incineration for most, if not all, OSWI units. Since there is a chance some potentially affected sources will obtain exemptions, we expect most of the affected VSMWC units and IWI units will close and utilize an economical alternative waste disposal method. Consequently, the net effect of the final emission guidelines will be a net decrease in costs to the universe of affected sources.

## VI. Statutory and Executive Order Reviews

### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by OMB and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers the final rules a "significant regulatory action" within the meaning of the Executive Order. Consequently, the final rules were submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

*B. Paperwork Reduction Act*

The information collection requirements in the final rules have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) documents have been prepared by EPA (ICR No. 2163.02 for subpart EEEE and 2164.02 for subpart FFFF), and copies may be obtained from Susan Auby by mail at the Collection Strategies Division, EPA (2822), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by e-mail at *auby.susan@epa.gov,* or by calling (202) 566–1672. A copy may also be downloaded off the Internet at *http://www.epa.gov/icr.* The information collection requirements are not enforceable until OMB approves them.

The final rules contain monitoring, reporting, and recordkeeping requirements. The information will be used by EPA to identify any new, modified, or reconstructed incineration units subject to the NSPS and to ensure that any new incineration units undergo a siting analysis and comply with the emission limits and other requirements. Similarly, the information specified in the emission guidelines will be used by States or EPA to identify existing units subject to the State or Federal plans that implement the emission guidelines, and to ensure that these units comply with their emission limits and other requirements. Records and reports are necessary to enable EPA or States to identify waste incineration units that may not be in compliance with the requirements. Based on reported information, EPA will decide which units and what records or processes should be inspected.

These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to EPA for which a claim of confidentiality is made will be safeguarded according to EPA policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

EPA estimates that there is no burden for the first 3 years after promulgation of the NSPS for industry and the implementing agency. This is because EPA expects no new OSWI units to be constructed over this 3-year period.

The estimated average annual burden for the first 3 years after promulgation of the emission guidelines for industry and the implementing agency is outlined below.

| Affected entity | Average annual hours | Labor costs | Capital costs | O&M costs | Total annual costs |
|---|---|---|---|---|---|
| Industry | 3,818 | $175,408 | $0 | $0 | $174,703 |
| Implementing agency | 383 | 17,611 | 0 | 0 | 17,611 |

EPA expects the emission guidelines to affect a maximum of 248 OSWI units over the first 3 years. There are no capital, start-up, or operation and maintenance costs for existing units during the first 3 years, because compliance with the emission guidelines is not required until 5 years after promulgation of the emission guidelines (or 3 years after the effective date of approval of a State or Federal plan to implement the guidelines). Costs in the first 3 years include time to review the guidelines and the State or Federal plan. The implementing agency will not incur any capital or start-up costs.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9 and 48 CFR chapter 15. When the ICRs are approved by OMB, EPA will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control numbers for the approved information collection requirements contained in the final rules.

*C. Regulatory Flexibility Act*

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions. EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rules.

For purposes of assessing the impacts of the final rules on small entities, small entity is defined as follows:

1. A small business that is an ultimate parent entity in the regulated industry that has a gross annual revenue less than $6.0 million (this varies by industry category, ranging up to $10.5 million for North American Industrial Classification System (NAICS) code 562213 (VSMWC)), based on Small Business Administration's size standards;

2. A small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or

3. A small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of the final rules on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. The economic impacts on small entities will not be significant because the cost of the final rules is expected to range from negligible to actual cost savings. EPA expects that the majority of these entities may realize a cost savings under the likely response to the final rules (closure and using alternative waste disposal method).

Alternative waste disposal methods, such as landfilling, are available for OSWI units. Our analysis using model plants and a supplemental analysis using site specific data both support the idea that the annual cost to landfill waste is typically less than the annual cost of using an OSWI unit for waste disposal. Thus, the likely response to the final rules will be for small entities that own and operate OSWI units to close the units and use an alternative

waste disposal method. More detailed information about these analyses is available in the docket (see Revised Economic Analysis for Other Solid Waste Incineration (OSWI) Units, November 2005; and Impacts of Other Solid Waste Incinerator Rule on Affected Small Entities, November 2005).

The Small Business Administration's Office of Advocacy (SBA) expressed concerns that EPA's certification that the proposed standards and guidelines would not have a significant economic impact on a substantial number of small entities is not based on an adequate analysis of IWI units operated by small entities. In response to SBA's public comment, we conducted further detailed analyses (as summarized in this preamble and available in the docket) and sent small entity outreach surveys requesting information regarding the use of solid waste incinerators at schools to eight entities (identified by SBA) associated with schools. All responses from the small entity outreach survey, with one exception, indicate that incinerators are not being used by the respondents. The one exception regards an institution that owns/operates pathological waste incinerators, which are excluded from regulation under the standards and guidelines.

Although the final rules will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of the rules on small entities. The final rules provide various exclusions for some sources that may find it unreasonably costly to comply with the rules or utilize alternative disposal options. These exclusions should provide relief for many small entities for which a reasonable disposal alternative is unavailable.

In addition, to ensure that affected sources were aware of the proposed rules, EPA sent fact sheets to 361 existing OSWI units in our inventory and an additional 125 fact sheets to trade organizations and interest groups that represented potential OSWI unit owners/operators. The fact sheets explained the proposed regulations, the anticipated costs and impacts to their facilities, and how they could submit comments. None of the facilities or interest groups submitted comments on the proposed OSWI rules or on the cost or other impacts EPA anticipated due to the rulemaking and, in fact, about one-third of the 361 facilities informed us that they no longer own or operate an incineration unit.

*D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act (UMRA) of 1995, Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and Tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if EPA publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, EPA must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that the final rules do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year. The total annual cost, in any 1 year, for all OSWI units to comply with today's final rules is estimated at $42 million. However, as previously stated in this preamble, most OSWI units are expected to close and utilize an economical alternative waste disposal method rather than complying with the final rules. Therefore, the cost impacts are expected to be negligible. Thus, the final rules are not subject to the requirements of section 202 and 205 of the UMRA. In addition, EPA has determined that the final rules contain no regulatory requirements that might significantly or uniquely affect small governments because the burden is small and the regulations do not unfairly apply to small governments. Therefore, the final rules are not subject to the requirements of section 203 of the UMRA.

*E. Executive Order 13132: Federalism*

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications."

The final rules do not have federalism implications. They will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rules will not impose substantial direct compliance costs on State or local governments, and will not preempt State law. Thus, Executive Order 13132 does not apply to the final rules.

*F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rules do not have Tribal implications, as specified in Executive Order 13175. They will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rules.

*G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives EPA considered.

EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rules are not subject to Executive Order 13045 because they are based on technology performance and not on health and safety risks.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use*

Executive Order 13211 (66 FR 28355, May 22, 2001) requires agencies to prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, OMB, a Statement of Energy Effects for certain actions identified as "significant energy actions." Section 4(b) of Executive Order 13211 defines "significant energy actions" as "any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action * * *." Although the final rules are considered to be a significant regulatory action under Executive Order 12866, they are not a "significant energy action" because they are not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for the determination follows.

EPA expects that few, if any, OSWI facilities will elect to continue to operate OSWI units, and that most facilities will respond to the final rules by closing existing OSWI units and using alternative waste disposal techniques. This response is likely because the annual cost of landfilling, an alternative waste disposal method, is typically less expensive than the annual cost of using an OSWI unit for waste disposal. In the few cases where an OSWI facility elects to comply with the final rules by installing a wet scrubber, the operation of the scrubber will result in a small increase in power consumption. However, due to the small size of these units (and the likelihood that very few of them will continue to operate), the energy impacts will be negligible.

Given the negligible change in energy consumption resulting from the final rules, EPA does not expect any price increase for any energy type. The cost of energy distribution should not be affected by the final rules at all since the final rules do not affect energy distribution facilities. EPA also expects that there would be no impact on the import of foreign energy supplies, and EPA does not expect other adverse outcomes to occur with regards to energy supplies.

Therefore, EPA concludes that the final rules are not likely to have a significant adverse effect on the supply, distribution, or use of energy.

*I. National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. No. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rules involve technical standards. EPA cites the following standards in the final rules: EPA Methods 1, 2, 3A, 3B, 4, 5, 6 or 6C, 7 or 7A, 7C, 7D, or 7E, 9, 10, 10A or 10B, 23, 26A, and 29 of 40 CFR part 60, appendix A.

Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 7D and 9. The search and review results have been documented and are in the docket for the final rules. One voluntary consensus standard was identified as an acceptable alternative to EPA test methods for the purposes of the final rules. The voluntary consensus standard ASME PTC 19–10–1981—Part 10, "Flue and Exhaust Gas Analyses," is cited in the final rules for its manual methods for measuring the nitrogen oxide, oxygen, and sulfur dioxide content of exhaust gas. These parts of ASME PTC 19–10–1981—Part 10 are acceptable alternatives to Methods 3B, 6, 7, and 7C.

The search for emissions measurement procedures identified 26 voluntary consensus standards potentially applicable to the final rules. EPA determined that 24 of the 26 candidate standards identified for measuring emissions of Cd, CO, dioxins/furans, HCl, Hg, Pb, PM, $NO_x$, and $SO_2$ subject to the emission limits were impractical alternatives to EPA test methods for the purposes of the final rules. Therefore, EPA does not intend to adopt the standards for this purpose. (See Docket ID No. EPA–HQ–OAR–2003–0156 for further information on the methods.) Two of the 26 voluntary consensus standards identified in this search were not available at the time the review was conducted because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2.

Tables 1 and 3 to subpart EEEE of 40 CFR part 60 and tables 2 and 4 to subpart FFFF of 40 CFR part 60 list the EPA testing methods included in the final rules. Under 40 CFR 60.8(b) and 60.13(i) of subpart A (General Provisions), a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

*J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General

of the United States. EPA will submit a report containing the final rules and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rules in the **Federal Register**. The final rules are not "major rules" as defined by 5 U.S.C. 804(2). The final NSPS will be effective on June 16, 2006. The final emission guidelines are effective on February 14, 2006.

### List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: November 30, 2005.

**Stephen L. Johnson,**

*Administrator.*

■ For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, et seq.

## Subpart A—[Amended]

■ 2. Section 60.17 is amended by revising paragraph (h) introductory text and adding paragraph (h)(4) to read as follows:

**§ 60.17 Incorporation by Reference.**

* * * * *

(h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.

* * * * *

(4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, and Tables 2 and 4 of subpart FFFF of this part.

* * * * *

■ 3. Part 60 is amended by adding subpart EEEE to read as follows:

### Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for Which Construction Is Commenced After December 9, 2004, or for Which Modification or Reconstruction Is Commenced on or After June 16, 2006.

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## Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for Which Construction Is Commenced After December 9, 2004, or for Which Modification or Reconstruction Is Commenced on or After June 16, 2006.

### Introduction

#### § 60.2880 What does this subpart do?

This subpart establishes new source performance standards for other solid waste incineration (OSWI) units. Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units.

#### § 60.2881 When does this subpart become effective?

This subpart takes effect June 16, 2006. Some of the requirements in this subpart apply to planning the incineration unit and must be completed even before construction is initiated on the unit (i.e., the preconstruction requirements in §§ 60.2894 and 60.2895). Other requirements such as the emission limitations and operating limits apply when the unit begins operation.

### Applicability

#### § 60.2885 Does this subpart apply to my incineration unit?

Yes, if your incineration unit meets all the requirements specified in paragraphs (a) through (c) of this section.

(a) Your incineration unit is a new incineration unit as defined in § 60.2886.

(b) Your incineration unit is an OSWI unit as defined in § 60.2977 or an air curtain incinerator subject to this subpart as described in § 60.2888(b). Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.2977.

(c) Your incineration unit is not excluded under § 60.2887.

#### § 60.2886 What is a new incineration unit?

(a) A new incineration unit is an incineration unit subject to this subpart that meets either of the two criteria specified in paragraphs (a)(1) or (2) of this section.

(1) Commenced construction after December 9, 2004.

(2) Commenced reconstruction or modification on or after June 16, 2006.

(b) This subpart does not affect your incineration unit if you make physical or operational changes to your incineration unit primarily to comply with the emission guidelines in subpart FFFF of this part. Such changes do not qualify as reconstruction or modification under this subpart.

#### § 60.2887 What combustion units are excluded from this subpart?

This subpart excludes the types of units described in paragraphs (a) through (q) of this section, as long as you meet the requirements of this section.

(a) *Cement kilns.* Your unit is excluded if it is regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) *Co-fired combustors.* Your unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if it meets the five requirements specified in paragraphs (b)(1) through (5) of this section.

(1) The unit has a Federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) You notify the Administrator that the unit qualifies for the exclusion.

(3) You provide the Administrator with a copy of the Federally enforceable permit.

(4) You record the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.

(5) You keep each report for 5 years. These records must be kept on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(c) *Cogeneration facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit meets all of these criteria.

(d) *Commercial and industrial solid waste incineration units.* Your unit is excluded if it is regulated under subparts CCCC or DDDD of this part and is required to meet the emission limitations established in those subparts.

(e) *Hazardous waste combustion units.* Your unit is excluded if it meets either of the two criteria specified in paragraph (e)(1) or (2) of this section.

(1) You are required to get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(2) Your unit is regulated under 40 CFR part 63, subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(f) *Hospital/medical/infectious waste incinerators.* Your unit is excluded if it is regulated under subparts Ce or Ec of this part (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators).

(g) *Incinerators and air curtain incinerators in isolated areas of Alaska.* Your incineration unit is excluded if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in § 60.2977.

(h) *Rural institutional waste incinerators.* Your incineration unit is excluded if it is an institutional waste incineration unit, as defined in § 60.2977, and the application for exclusion described in paragraphs (h)(1) and (2) of this section has been approved by the Administrator.

(1) Prior to initial startup, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in paragraphs (h)(1)(i) and (ii) of this section must be submitted to and approved by the Administrator.

(i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,

(ii) Alternative disposal options are not available or are economically infeasible.

(2) The application described in paragraph (h)(1) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.

(3) If you re-applied for an exclusion pursuant to paragraph (h)(2) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) *Institutional boilers and process heaters.* Your unit is excluded if it is regulated under 40 CFR part 63, subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) *Laboratory Analysis Units.* Your unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) *Materials recovery units.* Your unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) *Pathological waste incineration units.* Your institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2977 and you notify the Administrator that the unit meets these criteria.

(m) *Small or large municipal waste combustion units.* Your unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part and is required to meet the emission limitations established in those subparts.

(n) *Small power production facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (n)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit meets all of these criteria.

(o) *Temporary-use incinerators and air curtain incinerators used in disaster recovery.* Your incineration unit is excluded if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism and you comply with the requirements in § 60.2969.

(p) *Units that combust contraband or prohibited goods.* Your incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across State lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) *Incinerators used for national security.* Your incineration unit is excluded if it meets the requirements specified in either (q)(1) or (2) of this section.

(1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.

(2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in paragraphs (q)(2)(i) and (ii) of this section, and the Administrator has approved your request for exclusion.

(i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.

(ii) The request for exclusion must be submitted to and approved by the Administrator prior to initial startup.

### § 60.2888 Are air curtain incinerators regulated under this subpart?

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are subject to all requirements of this subpart, including the emission limitations specified in Table 1 of this subpart.

(b) Air curtain incinerators that burn only less than 35 tons per day of the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.2970 through 60.2974 and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

### § 60.2889 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If EPA has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency, the authorities contained in paragraphs (b)(1) through (6) of this section are retained by EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the emission limitations in Table 1 of this subpart and operating limits established under § 60.2916 and Table 2 of this subpart.

(2) Approval of petitions for specific operating limits in § 60.2917.

(3) Approval of major alternatives to test methods.

(4) Approval of major alternatives to monitoring.

(5) Approval of major alternatives to recordkeeping and reporting.

(6) The status report requirements in § 60.2911(c)(2).

### § 60.2890 How are these new source performance standards structured?

These new source performance standards contain nine major components, as follows:

(a) Preconstruction siting analysis.

(b) Waste management plan.

(c) Operator training and qualification.

(d) Emission limitations and operating limits.

(e) Performance testing.

(f) Initial compliance requirements.

(g) Continuous compliance requirements.

(h) Monitoring.

(i) Recordkeeping and reporting.

**§ 60.2891 Do all components of these new source performance standards apply at the same time?**

No, you must meet the preconstruction siting analysis and waste management plan requirements before you commence construction, reconstruction, or modification of the OSWI unit. The operator training and qualification, emission limitations, operating limits, performance testing and compliance, monitoring, and most recordkeeping and reporting requirements are met after the OSWI unit begins operation.

### Preconstruction Siting Analysis

**§ 60.2894 Who must prepare a siting analysis?**

(a) You must prepare a siting analysis if you commence construction, reconstruction, or modification of an OSWI unit after June 16, 2006.

(b) If you commence construction, reconstruction, or modification of an OSWI unit after December 9, 2004, but before June 16, 2006, you are not required to prepare the siting analysis specified in this subpart.

**§ 60.2895 What is a siting analysis?**

(a) The siting analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, you may consider costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of your OSWI unit's impacts that are prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, provided they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) You must complete and submit the siting requirements of this section as required under § 60.2952(c) prior to commencing construction, reconstruction, or modification.

### Waste Management Plan

**§ 60.2899 What is a waste management plan?**

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

**§ 60.2900 When must I submit my waste management plan?**

You must submit a waste management plan prior to commencing construction, reconstruction, or modification.

**§ 60.2901 What should I include in my waste management plan?**

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures and implement those measures the source considers practical and feasible, considering the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

### Operator Training and Qualification

**§ 60.2905 What are the operator training and qualification requirements?**

(a) No OSWI unit can be operated unless a fully trained and qualified OSWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified OSWI unit operator may operate the OSWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified OSWI unit operators are temporarily not accessible, you must follow the procedures in § 60.2911.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section.

(1) Training on the thirteen subjects listed in paragraphs (c)(1)(i) through (xiii) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters) and monitoring equipment calibration procedures, where applicable.

(viii) Actions to correct malfunctions or conditions that may lead to malfunction.

(ix) Bottom and fly ash characteristics and handling procedures.

(x) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(xi) Pollution prevention.

(xii) Waste management practices.

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

**§ 60.2906 When must the operator training course be completed?**

The operator training course must be completed by the latest of the three dates specified in paragraphs (a) through (c) of this section.

(a) Six months after your OSWI unit startup.

(b) December 18, 2006.

(c) The date before an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

**§ 60.2907 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2905(c).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2905(c)(2).

**§ 60.2908 How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.
(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.
(c) Inspection and maintenance.
(d) Responses to malfunctions or conditions that may lead to malfunction.
(e) Discussion of operating problems encountered by attendees.

**§ 60.2909 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.2908.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2907(a).

**§ 60.2910 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the nine topics described in paragraphs (a)(1) through (9) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this subpart.
(2) Procedures for receiving, handling, and charging waste.
(3) Incinerator startup, shutdown, and malfunction procedures.
(4) Procedures for maintaining proper combustion air supply levels.
(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.
(6) Monitoring procedures for demonstrating compliance with the operating limits established under this subpart.
(7) Reporting and recordkeeping procedures.
(8) The waste management plan required under §§ 60.2899 through 60.2901.
(9) Procedures for handling ash.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted by December 18, 2006 or prior to an employee's assumption of responsibilities for operation of the OSWI unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted not later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (c)(1) through (3) of this section.

(1) Records showing the names of OSWI unit operators who have completed review of the information in paragraph (a) of this section as required by paragraph (b) of this section, including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.2905, met the criteria for qualification under § 60.2907, and maintained or renewed their qualification under § 60.2908 or § 60.2909. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

**§ 60.2911 What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the three criteria specified in paragraphs (a) through (c) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for 12 hours or less, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed review of the information specified in § 60.2910(a) within the past 12 months. You do not need to notify the Administrator or include this as a deviation in your annual report.

(b) When all qualified operators are not accessible for more than 12 hours, but less than 2 weeks, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed a review of the information specified in § 60.2910(a) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under § 60.2956.

(c) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (c)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to EPA every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from EPA to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (c)(1) of this section. If EPA notifies you that your request to continue operation of the OSWI unit is disapproved, the OSWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.2905(a).

(ii) You notify EPA that a qualified operator is accessible and that you are resuming operation.

### Emission Limitations and Operating Limits

**§ 60.2915 What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 1 of this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

**§ 60.2916 What operating limits must I meet and by when?**

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 2 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraphs (a)(1)(i) or (ii) of this section, as appropriate.

(i) For continuous and intermittent units, maximum charge rate is the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) For batch units, maximum charge rate is the charge rate measured during the most recent performance test

demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(b) You must meet the operating limits established during the initial performance test 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

#### § 60.2917 What if I do not use a wet scrubber to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber or limit emissions in some other manner to comply with the emission limitations under § 60.2915, you must petition EPA for specific operating limits, the values of which are to be established during the initial performance test and then continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters.

(d) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

#### § 60.2918 What happens during periods of startup, shutdown, and malfunction?

The emission limitations and operating limits apply at all times except during OSWI unit startups, shutdowns, or malfunctions.

### Performance Testing

#### § 60.2922 How do I conduct the initial and annual performance test?

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) All performance tests must be conducted using the methods in Table 1 of this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in Table 1 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 in "60.2975.

(g) Method 26A of appendix A of this part must be used for hydrogen chloride concentration analysis, with the additional requirements specified in paragraphs (g)(1) through (3) of this section.

(1) The probe and filter must be conditioned prior to sampling using the procedure described in paragraphs (g)(1)(i) through (iii) of this section.

(i) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a one-hour period. Follow the sampling procedures outlined in section 8.1.5 of Method 26A of appendix A of this part. For the conditioning run, water can be used as the impinger solution.

(ii) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the preconditioning run with deionized water and discard these rinses.

(iii) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.

(2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 °C (248 °F) and 134 °C (273 °F) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in paragraphs (g)(3)(i) and (ii) of this section must be met.

(i) The cyclone described in section 6.1.4 of Method 26A of appendix A of this part must be used.

(ii) The post-test moisture removal procedure described in section 8.1.6 of Method 26A of appendix A of this part must be used.

#### § 60.2923 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in Table 1 of this subpart.

### Initial Compliance Requirements

#### § 60.2927 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?

You must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in Table 1 of this subpart and to establish operating limits using the procedure in § 60.2916 or § 60.2917. The initial performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in § 60.2922.

#### § 60.2928 By what date must I conduct the initial performance test?

The initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

### Continuous Compliance Requirements

#### § 60.2932 How do I demonstrate continuous compliance with the emission limitations and the operating limits?

(a) You must conduct an annual performance test for all of the pollutants in Table 1 of this subpart for each OSWI unit to determine compliance with the

emission limitations. The annual performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in 60.2922.

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in Table 1 of this subpart constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.2916 or established under § 60.2917. Three-hour rolling average values are used to determine compliance with the operating limits unless a different averaging period is established under § 60.2917. A 3-hour rolling average value (unless a different averaging period is established under § 60.2917) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Operating limits do not apply during performance tests.

**§ 60.2933 By what date must I conduct the annual performance test?**

You must conduct annual performance tests within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

**§ 60.2934 May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least three consecutive annual tests, and all performance tests for the pollutant over that period show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the 3rd year and no more than 36 months following the previous performance test.

(b) If your OSWI unit continues to meet the emission limitation for the pollutant, you may choose to conduct performance tests for that pollutant every 3rd year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for any pollutant, you must conduct annual performance tests for that pollutant until three consecutive annual performance tests for that pollutant all show compliance.

**§ 60.2935 May I conduct a repeat performance test to establish new operating limits?**

Yes, you may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

## Monitoring

**§ 60.2939 What continuous emission monitoring systems must I install?**

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in § 60.13.

**§ 60.2940 How do I make sure my continuous emission monitoring systems are operating correctly?**

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure carbon monoxide and oxygen.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 60 days after your OSWI unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use EPA Method 10, 10A, or 10B of appendix A of this part. Use EPA Method 3 or 3A to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in appendix B of this part. Table 3 of this subpart shows the required span values and performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of appendix F of this part for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

**§ 60.2941 What is my schedule for evaluating continuous emission monitoring systems?**

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 12 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in appendix F of this part.

**§ 60.2942 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems, and is the data collection requirement enforceable?**

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for carbon monoxide are in parts per million by dry volume at 7 percent oxygen. Use the 1-hour averages of oxygen data from your continuous emission monitoring system to determine the actual oxygen level and to calculate emissions at 7 percent oxygen.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. Section 60.13(e)(2) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you have deviated from the data collection requirement regardless of the emission level monitored.

(e) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations.

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to Table 3 of this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

**§ 60.2943 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use Equation 1 in § 60.2975 to calculate emissions at 7 percent oxygen.

(b) Use Equation 2 in § 60.2975 to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

**§ 60.2944 What operating parameter monitoring equipment must I install, and what operating parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitations under § 60.2915, you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 2 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 2 of this subpart at all times.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using a method or air pollution control device other than a wet scrubber to comply with the emission limitations under § 60.2915, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.2917.

**§ 60.2945 Is there a minimum amount of operating parameter monitoring data I must obtain?**

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the OSWI unit is operating.

(b) You must obtain valid monitoring data for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(c) If you do not obtain the minimum data required in paragraphs (a) and (b) of this section, you have deviated from the data collection requirement regardless of the operating parameter level monitored.

(d) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

## Recordkeeping and Reporting

**§ 60.2949 What records must I keep?**

You must maintain the 15 items (as applicable) as specified in paragraphs (a) through (o) of this section for a period of at least 5 years.

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (8) of this section.

(1) The OSWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For OSWI units that establish operating limits for controls other than wet scrubbers under § 60.2917, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(6) All 1-hour average concentrations of carbon monoxide emissions.

(7) All 12-hour rolling average values of carbon monoxide emissions and all 3-hour rolling average values of continuously monitored operating parameters.

(8) Records of the dates, times, and durations of any bypass of the control device.

(c) Identification of calendar dates and times for which continuous emission monitoring systems or monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the pollutant emissions or operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which monitoring data show a deviation from the carbon monoxide emissions limit in Table 1 of this subpart or a deviation from the operating limits in Table 2 of this subpart or a deviation from other operating limits established under § 60.2917 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under §§ 60.2942 and 60.2945.

(g) For carbon monoxide continuous emissions monitoring systems, document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of this part.

(h) Records of the calibration of any monitoring devices required under § 60.2944.

(i) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations and a description of the types of waste burned during the test.

(j) All documentation produced as a result of the siting requirements of §§ 60.2894 and 60.2895.

(k) Records showing the names of OSWI unit operators who have completed review of the information in § 60.2910(a) as required by § 60.2910(b), including the date of the initial review and all subsequent annual reviews.

(l) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.2905, met the criteria for qualification under § 60.2907, and maintained or renewed their qualification under § 60.2908 or § 60.2909. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(m) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(n) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(o) The information listed in § 60.2910(a).

**§ 60.2950 Where and in what format must I keep my records?**

(a) You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(b) All records must be available in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

**§ 60.2951 What reports must I submit?**

See Table 4 of this subpart for a summary of the reporting requirements.

**§ 60.2952 What must I submit prior to commencing construction?**

You must submit a notification prior to commencing construction that includes the five items listed in paragraphs (a) through (e) of this section.

(a) A statement of intent to construct.

(b) The anticipated date of commencement of construction.

(c) All documentation produced as a result of the siting requirements of § 60.2895.

(d) The waste management plan as specified in §§ 60.2899 through 60.2901.

(e) Anticipated date of initial startup.

**§ 60.2953 What information must I submit prior to initial startup?**

You must submit the information specified in paragraphs (a) through (e) of this section prior to initial startup.

(a) The type(s) of waste to be burned.

(b) The maximum design waste burning capacity.

(c) The anticipated maximum charge rate.

(d) If applicable, the petition for site-specific operating limits under § 60.2917.

(e) The anticipated date of initial startup.

**§ 60.2954 What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (a) and (b) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.2927, as applicable.

(b) The values for the site-specific operating limits established in § 60.2916 or § 60.2917.

**§ 60.2955 When must I submit my annual report?**

You must submit an annual report no later than 12 months following the submission of the information in § 60.2954. You must submit subsequent reports no more than 12 months following the previous report.

**§ 60.2956 What information must I include in my annual report?**

The annual report required under § 60.2955 must include the ten items listed in paragraphs (a) through (j) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2957 through 60.2959.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.2916 or § 60.2917.

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions and the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) Information recorded under § 60.2949(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.2934(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2934(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

**§ 60.2957 What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this subpart, if any recorded 12-hour average carbon monoxide emission rate is above the emission limitation, if the control device was bypassed, or if a performance test was conducted that showed a deviation from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

**§ 60.2958 What must I include in the deviation report?**

In each report required under § 60.2957, for any pollutant or operating parameter that deviated from the emission limitations or operating limits specified in this subpart, include the seven items described in paragraphs (a) through (g) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(g) The dates, times, and durations of any bypass of the control device.

**§ 60.2959 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to EPA every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from EPA to continue operation of the OSWI unit.

(b) If your unit was shut down by EPA, under the provisions of § 60.2911(c)(2), due to a failure to provide an accessible qualified operator, you must notify EPA that you are resuming operation once a qualified operator is accessible.

**§ 60.2960 Are there any other notifications or reports that I must submit?**

Yes, you must submit notifications as provided by § 60.7.

**§ 60.2961 In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

**§ 60.2962 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

## Title V Operating Permits

**§ 60.2966 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes, if you are subject to this subpart, you are required to apply for and obtain a title V operating permit unless you meet the relevant requirements for an exemption specified in § 60.2887.

**§ 60.2967 When must I submit a title V permit application for my new unit?**

(a) If your new unit subject to this subpart is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before one of the dates specified in paragraphs (a)(1) or (2) of this section. (See section 503(c) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i).)

(1) For a unit that commenced operation as a new source as of December 16, 2005, then a complete title V permit application must be submitted not later than December 18, 2006.

(2) For a unit that does not commence operation as a new source until after December 16, 2005, then a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source.

(b) If your new unit subject to this subpart is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, a unit subject to this subpart may be a major source or part of a major source), then your unit may be required to apply for a title V permit prior to the deadlines specified in paragraph (a) of this section. If more than one requirement triggers a source's obligation to apply for a title V permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement that first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(c) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. (See sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

## Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery

**§ 60.2969 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?**

Your incinerator or air curtain incinerator is excluded from the requirements of this subpart if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism. To qualify for this exclusion, the incinerator or air curtain incinerator must be used to combust debris in an area declared a State of Emergency by a local or State government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area, and you must follow the requirements specified in paragraphs (a) through (c) of this section.

(a) If the incinerator or air curtain incinerator is used during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(b) If the incinerator or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use incinerator or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in paragraphs (b)(1) and (2) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the incinerator or air curtain incinerator is being used, a description of the types of materials being burned in the incinerator or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the incinerator or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(c) If you submitted the notification containing the information in paragraph (b)(2) by the date specified in paragraph (b)(1), you may continue to operate the incinerator or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

## Air Curtain Incinerators That Burn Only Wood Waste, Clean Lumber, and Yard Waste

### § 60.2970 What is an air curtain incinerator?

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and subpart FFFF of this part only, air curtain incinerators include both firebox and trench burner units.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (4) of this section are required to meet only the requirements in §§ 60.2970 through 60.2974 and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

### § 60.2971 What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Within 60 days after your air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, you must meet the two limitations specified in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) The limitations in paragraph (a) of this section apply at all times except during malfunctions.

### § 60.2972 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in § 60.8.

(c) After the initial test for opacity, conduct annual tests no more than 12 months following the date of your previous test.

(d) If the air curtain incinerator has been out of operation for more than 12 months following the date of the previous test, then you must conduct a test for opacity upon startup of the unit.

### § 60.2973 What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Prior to commencing construction on your air curtain incinerator, submit the three items described in paragraphs (a)(1) through (3) of this section.

(1) Notification of your intent to construct the air curtain incinerator.

(2) Your planned initial startup date.

(3) Types of materials you plan to burn in your air curtain incinerator.

(b) Keep records of results of all initial and annual opacity tests in either paper copy or computer-readable format that can be printed upon request, unless the Administrator approves another format, for at least 5 years. You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(c) Make all records available for submittal to the Administrator or for an inspector's review.

(d) You must submit the results (each 6-minute average) of the initial opacity tests no later than 60 days following the initial test. Submit annual opacity test results within 12 months following the previous report.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(f) Keep a copy of the initial and annual reports on site for a period of 5 years. You must keep each report on site for at least 2 years. You may keep the reports off site for the remaining 3 years.

### § 60.2974 Am I required to apply for and obtain a title V operating permit for my air curtain incinerator that burns only wood waste, clean lumber, and yard waste?

Yes, if your air curtain incinerator is subject to this subpart, you are required to apply for and obtain a title V operating permit as specified in §§ 60.2966 and 60.2967.

## Equations

### § 60.2975 What equations must I use?

(a) *Percent oxygen.* Adjust all pollutant concentrations to 7 percent oxygen using equation 1 of this section.

$$C_{adj} = C_{meas} * (20.9-7)/(20.9-\%O_2) \qquad \text{(Eq. 1)}$$

Where:

$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen

$C_{meas}$ = pollutant concentration measured on a dry basis

(20.9–7) = 20.9 percent oxygen–7 percent oxygen (defined oxygen correction basis)

20.9 = oxygen concentration in air, percent

$\%O_2$ = oxygen concentration measured on a dry basis, percent

(b) *Capacity of a very small municipal waste combustion unit.* For very small municipal waste combustion units that can operate continuously for 24-hour periods, calculate the unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For very small municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(i) If your very small municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(ii) If your very small municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For very small municipal waste combustion units with a design not based on heat input capacity, use the maximum design charging rate.

(c) *Capacity of a batch very small municipal waste combustion unit.* Calculate the capacity of a batch OSWI unit as the maximum design amount of municipal solid waste it can charge per batch multiplied by the maximum number of batches it can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the unit can combust 24/16, or 1.5 batches, in 24 hours.

(d) *Carbon monoxide pollutant rate.* When hourly average pollutant rates ($E_h$) are obtained (*e.g.*, CEMS values), compute the rolling average carbon monoxide pollutant rate ($E_a$) for each 12-hour period using the following equation:

$$E_a = \frac{1}{12}\sum_{j=1}^{12} E_{hj} \qquad \text{(Eq. 2)}$$

Where:

$E_a$ = Average carbon monoxide pollutant rate for the 12-hour period, ppm corrected to 7 percent $O_2$.

$E_{hj}$ = Hourly arithmetic average pollutant rate for hour "j," ppm corrected to 7 percent $O_2$.

**Definitions**

**§ 60.2977 What definitions must I know?**

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

*Administrator means:*

(1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee;

(2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

*Air curtain incinerator* means an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and subpart FFFF of this part only, air curtain incinerators include both firebox and trench burner units.

*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

*Batch OSWI unit* means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means waste material resulting from the production or use of anti-neoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Class II municipal solid waste landfill* means a landfill that meets four criteria:

(1) Accepts, for incineration or disposal, less than 20 tons per day of municipal solid waste or other solid wastes based on an annual average;

(2) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(3) Is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and

(4) Serves a community that meets one of two criteria:

(i) Experiences for at least three months each year, an interruption in access to surface transportation, preventing access to a Class I municipal solid waste landfill; or

(ii) Has no practicable waste management alternative, with a landfill located in an area that annually receives 25 inches or less of precipitation.

*Class III municipal solid waste landfill* is a landfill that is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill, and that accepts, for disposal, either of the following two criteria:

(1) Ash from incinerated municipal waste in quantities less than 1 ton per day on an annual average, which ash must be free of food scraps that might attract animals; or

(2) Less than 5 tons per day of municipal solid waste, based on an annual average, and is not located in a place that meets either of the following criteria:

(i) Where public access is restricted, including restrictions on the right to move to the place and reside there; or

(ii) That is provided by an employer and that is populated totally by persons who are required to reside there as a condition of employment and who do not consider the place to be their permanent residence.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

*Collected from* means the transfer of material from the site at which the material is generated to a separate site where the material is burned.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Continuous emission monitoring system or CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an OSWI unit.

*Continuous OSWI unit* means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

*Deviation* means any instance in which a unit that meets the requirements in § 60.2885, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets the requirements in § 60.2885 and is required to obtain such a permit; or

(3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

*Dioxins/furans* means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*EPA* means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

*Institutional facility* means a land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose such as a school, hospital, prison, military installation, church, or other similar establishment or facility.

*Institutional waste* means solid waste (as defined in this subpart) that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery (as defined in this subpart); operated without energy recovery (as defined in this subpart); or operated with only waste heat recovery (as defined in this subpart). Institutional

waste also means solid waste (as defined in this subpart) combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

*Institutional waste incineration unit* means any combustion unit that combusts institutional waste (as defined in this subpart) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in § 60.2888(b)).

*Intermittent OSWI unit* means an OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

*Low-level radioactive waste* means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

*Metropolitan Statistical Area* means any areas listed as metropolitan statistical areas in OMB Bulletin No. 05–02 entitled "Update of Statistical Area Definitions and Guidance on Their Uses" dated February 22, 2005 (available on the Web at *http://www.whitehouse.gov/omb/bulletins/).*

*Modification or modified unit* means an incineration unit you have changed on or after June 16, 2006 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) Any physical change in the unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

*Municipal solid waste* means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that: (1) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste, as determined by § 60.2887(b).

*Municipal waste combustion unit* means, for the purpose of this subpart and subpart FFFF of this part, any setting or equipment that combusts municipal solid waste (as defined in this subpart) including, but not limited to, field-erected, modular, cyclonic burn barrel, and custom built incineration units (with or without energy recovery) operating with starved or excess air, boilers, furnaces, pyrolysis/combustion units, and air curtain incinerators (except those air curtain incinerators listed in § 60.2888(b)).

*Other solid waste incineration (OSWI) unit* means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in § 60.2887 as being excluded from the subpart are not OSWI units subject to this subpart. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

*Particulate matter* means total particulate matter emitted from OSWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Reconstruction* means rebuilding an incineration unit and meeting two criteria:

(1) The reconstruction begins on or after June 16, 2006.

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous OSWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent OSWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch OSWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material

as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Standard conditions*, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the OSWI unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

*Very small municipal waste combustion unit* means any municipal waste combustion unit that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in § 60.2975.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

*Wet scrubber* means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation, or demolition wastes.

(3) Clean lumber.

(4) Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(1) Construction, renovation, and demolition wastes.

(2) Clean lumber.

**Tables to Subpart EEEE of Part 60**

As stated in § 60.2915, you must comply with the following:

TABLE 1 TO SUBPART EEEE OF PART 60.—EMISSION LIMITATIONS

| For the air pollutant | You must meet this emission limitation[a] | Using this averaging time | And determining compliance using this method |
|---|---|---|---|
| 1. Cadmium | 18 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 2. Carbon monoxide | 40 parts per million by dry volume | 3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS.[b] | Method 10, 10A, or 10B of appendix A of this part and CEMS. |
| 3. Dioxins/furans (total basis) | 33 nanograms per dry standard cubic meter. | 3-run average (1 hour minimum sample meter time per run). | Method 23 of appendix A of this part. |
| 4. Hydrogen chloride | 15 parts per million by dry volume | 3-run average (1 hour minimum sample time per run). | Method 26A of appendix A of this part. |
| 5. Lead | 226 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 6. Mercury | 74 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 7. Opacity | 10 percent | 6-run average (1 hour minimum sample time per run). | Method 9 of appendix A of this part. |
| 8. Oxides of nitrogen | 103 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Method 7, 7A, 7C, 7D, or 7E of appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Methods 7 and 7C only. |
| 9. Particulate matter | 0.013 grains per dry standard cubic foot. | 3-run average (1 hour minimum sample time per run). | Method 5 or 29 of appendix A of this part. |
| 10. Sulfur dioxide | 3.1 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Method 6 or 6C of appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Method 6 only. |

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b] Calculated each hour as the average of the previous 12 operating hours.

As stated in § 60.2916, you must comply with the following:

TABLE 2 TO SUBPART EEEE OF PART 60.—OPERATING LIMITS FOR INCINERATORS AND WET SCRUBBERS

| For these operating parameters | You must establish these operating limits | And monitoring using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording | Averaging time |
| 1. Charge rate | Maximum charge rate | Continuous | Every hour | Daily for batch units. 3-hour rolling for continuous and intermittent units[a]. |
| 2. Pressure drop across the wet scrubber or amperage to wet scrubber. | Minimum pressure drop or amperage. | Continuous | Every 15 minutes | 3-hour rolling[a]. |
| 3. Scrubber liquor flow rate | Minimum flow rate | Continuous | Every 15 minutes | 3-hour rolling[a]. |
| 4. Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | 3-hour rolling[a]. |

[a] Calculated each hour as the average of the previous 3 operating hours.

As stated in § 60.2940, you must comply with the following:

TABLE 3 TO SUBPART EEEE OF PART 60.—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

| For the following pollutants | Use the following span values for your CEMS | Use the following performance specifications (P.S.) in appendix B of this part for your CEMS | If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part to collect data |
|---|---|---|---|
| 1. Carbon Monoxide | 125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit. | P.S.4A | Method 10. |
| 2. Oxygen | 25 percent oxygen | P.S.3 | Method 3A or 3B, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Method 3B only. |

As stated in § 60.2951, you must comply with the following:

TABLE 4 TO SUBPART EEEE OF PART 60.—SUMMARY OF REPORTING REQUIREMENTS

| Report | Due date | Contents | Reference |
|---|---|---|---|
| 1. Preconstruction report | a. Prior to commencing construction. | i. Statement of intent to construct; | § 60.2952. |
| | | ii. Anticipated date of commencement of onstruction; | § 60.2952. |
| | | iii. Documentation for siting requirements; | § 60.2952. |
| | | iv. Waste management plan; and | § 60.2952. |
| | | v. Anticipated date of initial startup. | § 60.2952. |
| 2. Startup notification | a. Prior to initial startup | i. Types of waste to be burned; | § 60.2953. |
| | | ii. Maximum design waste burning capacity; | § 60.2953. |
| | | iii. Anticipated maximum charge rate; | § 60.2953. |
| | | iv. If applicable, the petition for site-specific operating limits; and | § 60.2953. |
| | | v. Anticipated date of initial startup. | § 60.2953. |
| 3. Initial test report | a. No later than 60 days following the initial performance test. | i. Complete test report for the initial performance test; and | § 60.2954. |
| | | ii. The values for the site-specific operating limits | § 60.2954. |
| 4. Annual report | a. No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report. | i. Company Name and address; | §§ 60.2955 and 60.2956. |
| | | ii. Statement and signature by the owner or operator; | §§ 60.2955 and 60.2956. |
| | | iii. Date of report; | §§ 60.2955 and 60.2956. |
| | | iv. Values for the operating limits; | §§ 60.2955 and 60.2956. |
| | | v. If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period; | §§ 60.2955 and 60.2956. |
| | | vi. Highest and lowest recorded 12-hour averages, as applicable, for carbon monoxide emissions and highest and lowest recorded 3-hour averages, as applicable, for each operating parameter recorded for the calendar year being reported; | §§ 60.2955 and 60.2956. |

TABLE 4 TO SUBPART EEEE OF PART 60.—SUMMARY OF REPORTING REQUIREMENTS—Continued

| Report | Due date | Contents | Reference |
|---|---|---|---|
| | | vii. Information for deviations or malfunctions recorded under § 60.2949(b)(6) and (c) through (e); | §§ 60.2955 and 60.2956. |
| | | viii. If a performance test was conducted during the reporting period, the results of the test; | §§ 60.2955 and 60.2956. |
| | | ix. If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2934 (a) or (b) were met; and | §§ 60.2955 and 60.2956. |
| | | x. Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks. | §§ 60.2955 and 60.2956. |
| 5. Emission limitation or operating limit deviation report. | a. By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year. | i. Dates and times of deviation; | §§ 60.2957 and 60.2958. |
| | | ii. Averaged and recorded data for those dates; | §§ 60.2957 and 60.2958. |
| | | iii. Duration and causes of each deviation and the corrective actions taken; | §§ 60.2957 and 60.2958. |
| | | iv. Copy of operating limit monitoring data and any test reports; | §§ 60.2957 and 60.2958. |
| | | v. Dates, times, and causes for monitor downtimes incidents; | §§ 60.2957 and 60.2958. |
| | | vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction; and | §§ 60.2957 and 60.2958. |
| | | vii. Dates, times, and durations of any bypass of the control device. | §§ 60.2957 and 60.2958. |
| 6. Qualified operator deviation notification. | a. Within 10 days of deviation. | i. Statement of cause of deviation; | § 60.2959(a)(1). |
| | | ii. Description of efforts to have an accessible qualified operator; and | § 60.2959(a)(1) |
| | | iii. The date a qualified operator will be accessible | § 60.2959(a)(1). |
| 7. Qualified operation deviation status report. | a. Every 4 weeks following deviation. | i. Description of efforts to have an accessible qualified operator; | § 60.2959(a)(2). |
| | | ii. The date a qualified operator will be accessible; and | § 60.2959(a)(2). |
| | | iii. Request to continue operation | § 60.2959(a)(2). |
| 8. Qualified operator deviation notification of resumed operation. | a. Prior to resuming operation. | i. Notification that you are resuming operation | § 60.2959(b). |

**Note:** This table is only a summary, see the referenced sections of the rule for the complete requirements.

■ 4. Part 60 is amended by adding subpart FFFF to read as follows:

**Subpart FFFF—Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004**

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## Subpart FFFF—Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004

### Introduction

#### § 60.2980 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from other solid waste incineration (OSWI) units. The pollutants addressed by these emission guidelines are listed in Table 2 of this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part.

#### § 60.2981 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a State or United States protectorate with one or more existing OSWI units or air curtain incinerators subject to this subpart as described in § 60.2994(b) that commenced construction on or before December 9, 2004, you must submit a State plan to the U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the State plan to EPA by December 18, 2006.

#### § 60.2982 Is a State plan required for all States?

No, you are not required to submit a State plan if there are no existing OSWI units or air curtain incinerators subject to this subpart as described in § 60.2994(b) in your State and you submit a negative declaration letter in place of the State plan.

#### § 60.2983 What must I include in my State plan?

(a) You must include the following nine items in your State plan:

(1) Inventory of affected incineration units, including those that have ceased operation but have not been dismantled.

(2) Inventory of emissions from affected incineration units in your State.

(3) Compliance schedules for each affected incineration unit.

(4) For each affected incineration unit, emission limitations, operator training and qualification requirements, a waste management plan, and operating parameter requirements that are at least as protective as the emission guidelines contained in this subpart.

(5) Stack testing, recordkeeping, and reporting requirements.

(6) Transcript of the public hearing on the State plan.

(7) Provision for State progress reports to EPA.

(8) Identification of enforceable State mechanisms that you selected for implementing the emission guidelines of this subpart.

(9) Demonstration of your State's legal authority to carry out the sections 111(d) and 129 in your State plan.

(b) Your State plan may deviate from the format and content of the emission guidelines contained in this subpart.

However, if your State plan does deviate, you must demonstrate that your State plan is at least as protective as the emission guidelines contained in this subpart. Your State plan must address regulatory applicability, compliance schedule, operator training and qualification, a waste management plan, emission limitations, stack testing, operating parameter requirements, monitoring, recordkeeping and reporting, and air curtain incinerator requirements.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of State Plans for Designated Facilities) in your State plan.

**§ 60.2984 Is there an approval process for my State plan?**

Yes, EPA will review your State plan according to § 60.27.

**§ 60.2985 What if my State plan is not approvable?**

If you do not submit an approvable State plan (or a negative declaration letter) by December 17, 2007, EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of incineration units not covered by an approved State plan must comply with the Federal plan. The Federal plan is an interim action and applies to units until a State plan covering those units is approved and becomes effective.

**§ 60.2986 Is there an approval process for a negative declaration letter?**

No, EPA has no formal review process for negative declaration letters. Once we receive your negative declaration letter, we will place a copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, an existing incineration unit is found in your State, the Federal plan implementing the emission guidelines contained in this subpart would automatically apply to that unit until your State plan is approved.

**§ 60.2987 What compliance schedule must I include in my State plan?**

Your State plan must include compliance schedules that require OSWI units and air curtain incinerators subject to this subpart as described in § 60.2994(b) to achieve final compliance as expeditiously as practicable after approval of the State plan but not later than the earlier of the following two dates:

(a) December 16, 2010.

(b) Three years after the effective date of State plan approval.

**§ 60.2988 Are there any State plan requirements for this subpart that apply instead of the requirements specified in subpart B of this part?**

Yes, subpart B of this part establishes general requirements for developing and processing section 111(d) plans. This subpart applies instead of the requirements in subpart B of this part for the following:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all OSWI units and air curtain incinerators subject to this subpart as described in § 60.2994(b) to comply by December 16, 2010 or 3 years after the effective date of State plan approval, whichever is sooner. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

(b) State plans developed to implement this subpart are required to include only one increment of progress for the affected incineration units. This increment is the final compliance date in § 60.21(h)(5). This applies instead of the requirement of § 60.24(e)(1).

**§ 60.2989 Does this subpart directly affect incineration unit owners and operators in my State?**

(a) No, this subpart does not directly affect incineration unit owners and operators in your State. However, unit owners and operators must comply with the State plan you develop to implement the emission guidelines contained in this subpart.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by December 17, 2007, EPA will implement and enforce a Federal plan, as provided in § 60.2985, to ensure that each unit within your State reaches compliance with all the provisions of this subpart by December 16, 2010.

**§ 60.2990 What Authorities are withheld by EPA?**

The following authorities are withheld by EPA and not transferred to the State, local or tribal agency:

(1) Approval of alternatives to the emission limitations in Table 2 of this subpart and operating limits established under § 60.3023 and Table 3 of this subpart.

(2) Approval of petitions for specific operating limits in § 60.3024.

(3) Approval of major alternatives to test methods.

(4) Approval of major alternatives to monitoring.

(5) Approval of major alternatives to recordkeeping and reporting.

(6) The status report requirements in § 60.3020(c)(2).

**Applicability of State Plans**

**§ 60.2991 What incineration units must I address in my State plan?**

Your State plan must address all incineration units in your State that meet all the requirements specified in paragraphs (a) through (c) of this section.

(a) The incineration unit is an existing incineration unit as defined in § 60.2992.

(b) The incineration unit is an OSWI unit as defined in § 60.3078 or an air curtain incinerator subject to this subpart as described in § 60.2994(b). OSWI units are very small municipal waste combustion units and institutional waste incineration units as defined in § 60.3078.

(c) The incineration unit is not excluded under § 60.2993.

**§ 60.2992 What is an existing incineration unit?**

An existing incineration unit is an OSWI unit or air curtain incinerator subject to this subpart that commenced construction on or before December 9, 2004, except as provided in paragraph (a) of this section.

(a) If the owner or operator of an incineration unit makes changes that meet the definition of modification or reconstruction on or after June 16, 2006, the unit becomes subject to subpart EEEE of this part (New Source Performance Standards for Other Solid Waste Incineration Units) and the State plan no longer applies to that unit.

(b) If the owner or operator of an existing incineration unit makes physical or operational changes to the unit primarily to comply with the State plan, then subpart EEEE of this part does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart EEEE of this part.

**§ 60.2993 Are any combustion units excluded from my State plan?**

This subpart excludes the types of units described in paragraphs (a) through (q) of this section, as long as the owner/operator meets the requirements of this section.

(a) *Cement kilns.* The unit is excluded if it is regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) *Co-fired combustors.* The unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if the owner/operator of the

unit meets the five requirements specified in paragraphs (b)(1) through (5) of this section.

(1) Has a Federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) Notifies the Administrator that the unit qualifies for the exclusion.

(3) Provides the Administrator with a copy of the Federally enforceable permit.

(4) Records the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.

(5) Keeps each report for 5 years. These records must be kept on site for at least 2 years, but may be kept off site for the remaining 3 years.

(c) *Cogeneration facilities.* The unit is excluded if it meets the three requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) The owner/operator of the unit notifies the Administrator that the unit meets all of these criteria.

(d) *Commercial and industrial solid waste incineration units.* The unit is excluded if it is regulated under subparts CCCC or DDDD of this part or subpart III of part 62 and is required to meet the emission limitations established in those subparts.

(e) *Hazardous waste combustion units.* The unit is excluded if it meets either of the two criteria specified in paragraph (e)(1) or (2) of this section.

(1) The owner/operator of the unit is required to get a permit for the unit under section 3005 of the Solid Waste Disposal Act.

(2) The unit is regulated under 40 CFR part 63, subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(f) *Hospital/medical/infectious waste incinerators.* The unit is excluded if it is regulated under subparts Ce or Ec of this part (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators) or subpart HHH of part 62 (Federal Plan for Hospital/Medical/Infectious Waste Incinerators constructed on or before June 20, 1996).

(g) *Incinerators and air curtain incinerators in isolated areas of Alaska.* The incineration unit is excluded if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in § 60.3078.

(h) *Rural institutional waste incinerators.* The incineration unit is excluded if it is an institutional waste incinerator, as defined in § 60.3078, and the application for exclusion described in paragraphs (h)(1) and (2) of this section has been approved by the Administrator.

(1) Prior to 1 year before the final compliance date, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in paragraphs (h)(1)(i) and (ii) of this section must be submitted to the Administrator for approval.

(i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,

(ii) Alternative disposal options are not available or are economically infeasible.

(2) The application described in paragraph (h)(1) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.

(3) If you re-applied for an exclusion pursuant to paragraph (h)(2) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) *Institutional boilers and process heaters.* The unit is excluded if it is regulated under 40 CFR part 63, subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) *Laboratory Analysis Units.* The unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) *Materials recovery units.* The unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) *Pathological waste incineration units.* The institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.3078 and the owner/operator of the unit notifies the Administrator that the unit meets these criteria.

(m) *Small or large municipal waste combustion units.* The unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part or subparts FFF or JJJ of part 62 and is required to meet the emission limitations established in those subparts.

(n) *Small power production facilities.* The unit is excluded if it meets the three requirements specified in paragraphs (n)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) The owner/operator of the unit notifies the Administrator that the unit meets all of these criteria.

(o) *Temporary-use incinerators and air curtain incinerators used in disaster recovery.* The incineration unit is excluded if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism and you comply with the requirements in § 60.3061.

(p) *Units that combust contraband or prohibited goods.* The incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across state lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) *Incinerators used for national security.* Your incineration unit is excluded if it meets the requirements specified in either (q)(1) or (2) of this section.

(1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.

(2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in paragraphs (q)(2)(i) and (ii) of this section, and the Administrator has approved your request for exclusion.

(i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national

security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.

(ii) The request for exclusion must be submitted to the Administrator prior to 1 year before the final compliance date.

**§ 60.2994 Are air curtain incinerators regulated under this subpart?**

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are subject to all requirements of this subpart, including the emission limitations specified in Table 2 of this subpart.

(b) Air curtain incinerators that burn only less than 35 tons per day of the materials listed in paragraphs (b)(1) through (4) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in paragraphs (b)(1) through (4) of this section generated at that facility, are required to meet only the requirements in §§ 60.3062 through 60.3069 and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

## Model Rule—Use of Model Rule

**§ 60.2996 What is the purpose of the "model rule" in this subpart?**

(a) The model rule provides the emission guidelines requirements in a standard regulation format. You must develop a State plan that is at least as protective as the model rule. You may use the model rule language as part of your State plan. Alternative language may be used in your State plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the "model rule" of §§ 60.3000 through 60.3078, "you" means the owner or operator of an OSWI unit or air curtain incinerator subject to this subpart.

**§ 60.2997 How does the model rule relate to the required elements of my State plan?**

Use the model rule to satisfy the State plan requirements specified in § 60.2983(a)(4) and (5).

**§ 60.2998 What are the principal components of the model rule?**

The model rule contains nine major components, as follows:

(a) Compliance schedule.

(b) Waste management plan.

(c) Operator training and qualification.

(d) Emission limitations and operating limits.

(e) Performance testing.

(f) Initial compliance requirements.

(g) Continuous compliance requirements.

(h) Monitoring.

(i) Recordkeeping and reporting.

## Model Rule—Compliance Schedule

**§ 60.3000 When must I comply?**

Table 1 of this subpart specifies the final compliance date. You must submit a notification to the Administrator stating whether final compliance has been achieved, postmarked within 10 business days after the final compliance date in Table 1 of this subpart.

**§ 60.3001 What must I do if I close my OSWI unit and then restart it?**

(a) If you close your OSWI unit but will reopen it prior to the final compliance date in your State plan, you must meet the final compliance date specified in Table 1 of this subpart.

(b) If you close your OSWI unit but will restart it after your final compliance date, you must complete emission control retrofit and meet the emission limitations on the date your OSWI unit restarts operation. You must conduct your initial performance test within 30 days of restarting your OSWI unit.

**§ 60.3002 What must I do if I plan to permanently close my OSWI unit and not restart it?**

You must close the unit before the final compliance date specified in Table 1 of this subpart.

## Model Rule—Waste Management Plan

**§ 60.3010 What is a waste management plan?**

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

**§ 60.3011 When must I submit my waste management plan?**

You must submit a waste management plan no later than 60 days following the initial performance test as specified in Table 5 of this subpart. Section 60.3031 specifies the date by which you are required to conduct your performance test.

**§ 60.3012 What should I include in my waste management plan?**

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures and implement those measures the source considers practical and feasible, considering the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

## Model Rule—Operator Training and Qualification

**§ 60.3014 What are the operator training and qualification requirements?**

(a) No OSWI unit can be operated unless a fully trained and qualified OSWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified OSWI unit operator may operate the OSWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified OSWI unit operators are temporarily not accessible, you must follow the procedures in § 60.3020.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section.

(1) Training on the 13 subjects listed in paragraphs (c)(1)(i) through (xiii) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters)

and monitoring equipment calibration procedures, where applicable.

(viii) Actions to correct malfunctions or conditions that may lead to malfunction.

(ix) Bottom and fly ash characteristics and handling procedures.

(x) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(xi) Pollution prevention.

(xii) Waste management practices.

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

**§ 60.3015 When must the operator training course be completed?**

The operator training course must be completed by the latest of the three dates specified in paragraphs (a) through (c) of this section.

(a) The final compliance date specified in Table 1 of this subpart.

(b) Six months after your OSWI unit startup.

(c) Six months after an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

**§ 60.3016 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.3014(c).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.3014(c)(2).

**§ 60.3017 How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(c) Inspection and maintenance.

(d) Responses to malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

**§ 60.3018 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.3017.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.3016(a).

**§ 60.3019 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all OSWI unit operators that addresses the nine topics described in paragraphs (a)(1) through (9) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this subpart.

(2) Procedures for receiving, handling, and charging waste.

(3) Incinerator startup, shutdown, and malfunction procedures.

(4) Procedures for maintaining proper combustion air supply levels.

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(6) Monitoring procedures for demonstrating compliance with the operating limits established under this subpart.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§ 60.3010 through 60.3012.

(9) Procedures for handling ash.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted by the latest of three dates specified in paragraphs (b)(1)(i) through (iii) of this section.

(i) The final compliance date specified in Table 1 of this subpart.

(ii) Six months after your OSWI unit startup.

(iii) Six months after an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted not later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (c)(1) through (3) of this section.

(1) Records showing the names of OSWI unit operators who have completed review of the information in paragraph (a) of this section as required by paragraph (b) of this section, including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.3014, met the criteria for qualification under § 60.3016, and maintained or renewed their qualification under § 60.3017 or § 60.3018. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

**§ 60.3020 What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (*i.e.*, not at the facility and not able to be at the facility within 1 hour), you must meet one of the three criteria specified in paragraphs (a) through (c) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for 12 hours or less, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed review of the information specified in § 60.3019(a) within the past 12 months. You do not need to notify the Administrator or include this as a deviation in your annual report.

(b) When all qualified operators are not accessible for more than 12 hours, but less than 2 weeks, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed a review of the information specified in § 60.3019(a) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under § 60.3051.

(c) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (c)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible,

and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to EPA every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from EPA to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (c)(1) of this section. If EPA notifies you that your request to continue operation of the OSWI unit is disapproved, the OSWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.3014(a).

(ii) You notify EPA that a qualified operator is accessible and that you are resuming operation.

**Model Rule—Emission Limitations and Operating Limits**

**§ 60.3022 What emission limitations must I meet and by when?**

You must meet the emission limitations specified in Table 2 of this subpart on the date the initial performance test is required or completed (whichever is earlier). Section 60.3031 specifies the date by which you are required to conduct your performance test.

**§ 60.3023 What operating limits must I meet and by when?**

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 3 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraphs (a)(1)(i) or (ii) of this section, as appropriate.

(i) For continuous and intermittent units, maximum charge rate is the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) For batch units, maximum charge rate is the charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(b) You must meet the operating limits established during the initial performance test beginning on the date 180 days after your final compliance date in Table 1 of this subpart.

**§ 60.3024 What if I do not use a wet scrubber to comply with the emission limitations?**

If you use an air pollution control device other than a wet scrubber or limit emissions in some other manner to comply with the emission limitations under § 60.3022, you must petition EPA for specific operating limits, the values of which are to be established during the initial performance test and then continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by EPA. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters.

(d) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

**§ 60.3025 What happens during periods of startup, shutdown, and malfunction?**

The emission limitations and operating limits apply at all times except during OSWI unit startups, shutdowns, or malfunctions.

**Model Rule—Performance Testing**

**§ 60.3027 How do I conduct the initial and annual performance test?**

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) All performance tests must be conducted using the methods in Table 2 of this subpart.

(c) All performance tests must be conducted using the minimum run duration specified in Table 2 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 in § 60.3076.

(g) Method 26A of appendix A of this part must be used for hydrogen chloride concentration analysis, with the additional requirements specified in paragraphs (g)(1) through (3) of this section.

(1) The probe and filter must be conditioned prior to sampling using the procedure described in paragraphs (g)(1)(i) through (iii) of this section.

(i) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a 1-hour period. Follow the sampling procedures outlined in section 8.1.5 of Method 26A of appendix A of this part. For the conditioning run, water can be used as the impinger solution.

(ii) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the

preconditioning run with deionized water and discard these rinses.

(iii) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.

(2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 °C (248 °F) and 134 °C (273 °F) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in paragraphs (g)(3)(i) and (ii) of this section must be met.

(i) The cyclone described in section 6.1.4 of Method 26A of appendix A of this part must be used.

(ii) The post-test moisture removal procedure described in section 8.1.6 of Method 26A of appendix A of this part must be used.

**§ 60.3028 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 2 of this subpart.

**Model Rule—Initial Compliance Requirements**

**§ 60.3030 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

You must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in Table 2 of this subpart and to establish operating limits using the procedure in § 60.3023 or § 60.3024. The initial performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.3027.

**§ 60.3031 By what date must I conduct the initial performance test?**

The initial performance test must be conducted no later than 180 days after your final compliance date. Your final compliance date is specified in Table 1 of this subpart.

**Model Rule—Continuous Compliance Requirements**

**§ 60.3033 How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) You must conduct an annual performance test for all of the pollutants in Table 2 of this subpart for each OSWI unit to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.3027.

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in Table 2 constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in § 60.3023 or established under § 60.3024. Three-hour rolling average values are used to determine compliance with the operating limits unless a different averaging period is established under § 60.3024. A 3-hour rolling average value (unless a different averaging period is established under § 60.3024) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Operating limits do not apply during performance tests.

**§ 60.3034 By what date must I conduct the annual performance test?**

You must conduct annual performance tests within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

**§ 60.3035 May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least three consecutive annual tests, and all performance tests for the pollutant over that period show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the 3rd year and no more than 36 months following the previous performance test.

(b) If your OSWI unit continues to meet the emission limitation for the pollutant, you may choose to conduct performance tests for that pollutant every 3rd year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for any pollutant, you must conduct annual performance tests for that pollutant until three consecutive annual performance tests for that pollutant all show compliance.

**§ 60.3036 May I conduct a repeat performance test to establish new operating limits?**

Yes, you may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

**Model Rule—Monitoring**

**§ 60.3038 What continuous emission monitoring systems must I install?**

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in § 60.13.

**§ 60.3039 How do I make sure my continuous emission monitoring systems are operating correctly?**

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure carbon monoxide and oxygen.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 180 days after your final compliance date in Table 1 of this subpart.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use EPA Method 10, 10A, or 10B of appendix A of this part. Use EPA Method 3 or 3A to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in appendix B of this part. Table 4 of this subpart shows the required span values and performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of appendix F of this part for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

**§ 60.3040 What is my schedule for evaluating continuous emission monitoring systems?**

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 12 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in appendix F of this part.

**§ 60.3041 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems, and is the data collection requirement enforceable?**

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for carbon monoxide are in parts per million by dry volume at 7 percent oxygen. Use the 1-hour averages of oxygen data from your continuous emission monitoring system to determine the actual oxygen level and to calculate emissions at 7 percent oxygen.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. Section 60.13(e)(2) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you have deviated from the data collection requirement regardless of the emission level monitored.

(e) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations.

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to Table 4 of this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

**§ 60.3042 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use Equation 1 in § 60.3076 to calculate emissions at 7 percent oxygen.

(b) Use Equation 2 in § 60.3076 to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

**§ 60.3043 What operating parameter monitoring equipment must I install, and what operating parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitations under § 60.3022, you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 3 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 3 of this subpart at all times.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using a method or air pollution control device other than a wet scrubber to comply with the emission limitations under § 60.3022, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.3024.

**§ 60.3044 Is there a minimum amount of operating parameter monitoring data I must obtain?**

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the OSWI unit is operating.

(b) You must obtain valid monitoring data for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(c) If you do not obtain the minimum data required in paragraphs (a) and (b) of this section, you have deviated from the data collection requirement regardless of the operating parameter level monitored.

(d) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

**Model Rule—Recordkeeping and Reporting**

**§ 60.3046 What records must I keep?**

You must maintain the 14 items (as applicable) as specified in paragraphs (a) through (n) of this section for a period of at least 5 years.

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (8) of this section.

(1) The OSWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For OSWI units that establish operating limits for controls other than wet scrubbers under § 60.3024, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(6) All 1-hour average concentrations of carbon monoxide emissions.

(7) All 12-hour rolling average values of carbon monoxide emissions and all 3-hour rolling average values of continuously monitored operating parameters.

(8) Records of the dates, times, and durations of any bypass of the control device.

(c) Identification of calendar dates and times for which continuous emission monitoring systems or monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the pollutant emissions or operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which monitoring data show a deviation from the carbon monoxide emissions limit in Table 2 of this subpart or a deviation from the operating limits in Table 3 of this subpart or a deviation from other operating limits established under § 60.3024 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under §§ 60.3041 and 60.3044.

(g) For carbon monoxide continuous emissions monitoring systems, document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of this part.

(h) Records of the calibration of any monitoring devices required under § 60.3043.

(i) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations and a description of the types of waste burned during the test.

(j) Records showing the names of OSWI unit operators who have completed review of the information in § 60.3019(a) as required by § 60.3019(b), including the date of the initial review and all subsequent annual reviews.

(k) Records showing the names of the OSWI unit operators who have completed the operator training requirements under § 60.3014, met the criteria for qualification under § 60.3016, and maintained or renewed their qualification under § 60.3017 or § 60.3018. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(l) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(m) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(n) The information listed in § 60.3019(a).

### § 60.3047 Where and in what format must I keep my records?

(a) You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(b) All records must be available in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

### § 60.3048 What reports must I submit?

See Table 5 of this subpart for a summary of the reporting requirements.

### § 60.3049 What information must I submit following my initial performance test?

You must submit the information specified in paragraphs (a) through (c) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.3030, as applicable.

(b) The values for the site-specific operating limits established in § 60.3023 or § 60.3024.

(c) The waste management plan, as specified in §§ 60.3010 through 60.3012.

### § 60.3050 When must I submit my annual report?

You must submit an annual report no later than 12 months following the submission of the information in § 60.3049. You must submit subsequent reports no more than 12 months following the previous report.

### § 60.3051 What information must I include in my annual report?

The annual report required under § 60.3050 must include the ten items listed in paragraphs (a) through (j) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.3052 through 60.3054.

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.3023 or § 60.3024.

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions and the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) Information recorded under § 60.3046(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.3035(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.3035(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

### § 60.3052 What else must I report if I have a deviation from the operating limits or the emission limitations?

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this subpart, if any recorded 12-hour average carbon monoxide emission rate is above the emission limitation, if the control device was bypassed, or if a performance test was conducted that showed a deviation from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

### § 60.3053 What must I include in the deviation report?

In each report required under § 60.3052, for any pollutant or operating parameter that deviated from the emission limitations or operating limits specified in this subpart, include the seven items described in paragraphs (a) through (g) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(g) The dates, times, and durations of any bypass of the control device.

**§ 60.3054 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to EPA every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from EPA to continue operation of the OSWI unit.

(b) If your unit was shut down by EPA, under the provisions of § 60.3020(c)(2), due to a failure to provide an accessible qualified operator, you must notify EPA that you are resuming operation once a qualified operator is accessible.

**§ 60.3055 Are there any other notifications or reports that I must submit?**

Yes, you must submit notifications as provided by § 60.7.

**§ 60.3056 In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

**§ 60.3057 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

## Model Rule—Title V Operating Permits

**§ 60.3059 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes, if you are subject to an applicable EPA-approved and effective Clean Air Act section 111(d)/129 State or Tribal plan or an applicable and effective Federal plan, you are required to apply for and obtain a title V operating permit unless you meet the relevant requirements for an exemption specified in § 60.2993.

**§ 60.3060 When must I submit a title V permit application for my existing unit?**

(a)(1) If your existing unit is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before the earlier of the dates specified in paragraphs (a)(1)(i) through (iii) of this section. (See sections 129(e), 503(c), 503(d), and 502(a) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i).)

(i) 12 months after the effective date of any applicable EPA-approved Clean Air Act section 111(d)/129 State or Tribal plan.

(ii) 12 months after the effective date of any applicable Federal plan.

(iii) December 16, 2008.

(2) For any existing unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR part 60, subpart FFFF, applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable Clean Air Act section 111(d)/129 State or Tribal plan is approved by EPA and becomes effective.

(b) If your existing unit is subject to title V as a result of some triggering requirement(s) other than those specified in paragraph (a) of this section (for example, a unit may be a major source or part of a major source), then your unit may be required to apply for a title V permit prior to the deadlines specified in paragraph (a). If more than one requirement triggers a source's obligation to apply for a title V permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement which first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(c) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. (See sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

## Model Rule—Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery

**§ 60.3061 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?**

Your incinerator or air curtain incinerator is excluded from the requirements of this subpart if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism. To qualify for this exclusion, the incinerator or air curtain incinerator must be used to combust debris in an area declared a State of Emergency by a local or State government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area, and you must follow the requirements specified in paragraphs (a) through (c) of this section.

(a) If the incinerator or air curtain incinerator is used during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(b) If the incinerator or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use incinerator or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in paragraphs (b)(1) and (2) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the incinerator or air curtain incinerator is being used, a description of the types of materials being burned in the incinerator or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the incinerator

or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(c) If you submitted the notification containing the information in paragraph (b)(2) by the date specified in paragraph (b)(1), you may continue to operate the incinerator or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

**Model Rule—Air Curtain Incinerators That Burn Only Wood Waste, Clean Lumber, and Yard Waste**

**§ 60.3062 What is an air curtain incinerator?**

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and subpart EEEE of this part only, air curtain incinerators include both firebox and trench burner units.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (4) of this section are required to meet only the requirements in §§ 60.3062 through 60.3069 and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

**§ 60.3063 When must I comply if my air curtain incinerator burns only wood waste, clean lumber, and yard waste?**

Table 1 of this subpart specifies the final compliance date. You must submit a notification to the Administrator postmarked within 10 business days after the final compliance date in Table 1 of this subpart.

**§ 60.3064 What must I do if I close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and then restart it?**

(a) If you close your incinerator but will reopen it prior to the final compliance date in your State plan, you must meet the final compliance date specified in Table 1 of this subpart.

(b) If you close your incinerator but will restart it after your final compliance date, you must meet the emission limitations on the date your incinerator restarts operation.

**§ 60.3065 What must I do if I plan to permanently close my air curtain incinerator that burns only wood waste, clean lumber, and yard waste and not restart it?**

You must close the unit before the final compliance date specified in Table 1 of this subpart.

**§ 60.3066 What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Within 180 days after your final compliance date in Table 1 of this subpart, you must meet the two limitations specified in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) The limitations in paragraph (a) of this section apply at all times except during malfunctions.

**§ 60.3067 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in § 60.8 within 180 days after the final compliance date in Table 1 of this subpart.

(c) After the initial test for opacity, conduct annual tests no more than 12 months following the date of your previous test.

(d) If the air curtain incinerator has been out of operation for more than 12 months following the date of your previous test, then you must conduct a test for opacity upon startup of the unit.

**§ 60.3068 What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?**

(a) Keep records of results of all initial and annual opacity tests in either paper copy or computer-readable format that can be printed upon request, unless the Administrator approves another format, for at least 5 years. You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(b) Make all records available for submittal to the Administrator or for an inspector's review.

(c) You must submit the results (each 6-minute average) of the initial opacity tests no later than 60 days following the initial test. Submit annual opacity test results within 12 months following the previous report.

(d) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(e) Keep a copy of the initial and annual reports for a period of 5 years. You must keep each report on site for at least 2 years. You may keep the reports off site for the remaining 3 years.

**§ 60.3069 Am I required to apply for and obtain a title V operating permit for my air curtain incinerator that burns only wood waste, clean lumber, and yard waste?**

Yes, if your air curtain incinerator is subject to this subpart, you are required to apply for and obtain a title V operating permit as specified in §§ 60.3059 and 60.3060.

**Model Rule—Equations**

**§ 60.3076 What equations must I use?**

(a) *Percent oxygen.* Adjust all pollutant concentrations to 7 percent oxygen using Equation 1 of this section.

$$C_{adj} = C_{meas} * (20.9-7)/(20.9-\%O_2) \qquad \text{(Eq. 1)}$$

Where:

$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen

$C_{meas}$ = pollutant concentration measured on a dry basis

(20.9–7) = 20.9 percent oxygen–7 percent oxygen (defined oxygen correction basis)

20.9 = oxygen concentration in air, percent

$\%O_2$ = oxygen concentration measured on a dry basis, percent

(b) *Capacity of a very small municipal waste combustion unit.* For very small municipal waste combustion units that can operate continuously for 24-hour periods, calculate the unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For very small municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(i) If your very small municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(ii) If your very small municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For very small municipal waste combustion units with a design not based on heat input capacity, use the maximum design charging rate.

(c) *Capacity of a batch very small municipal waste combustion unit.* Calculate the capacity of a batch OSWI unit as the maximum design amount of municipal solid waste it can charge per batch multiplied by the maximum number of batches it can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the OSWI unit can combust 24/16, or 1.5 batches, in 24 hours.

(d) *Carbon monoxide pollutant rate.* When hourly average pollutant rates ($E_h$) are obtained (e.g., CEMS values), compute the rolling average carbon monoxide pollutant rate ($E_a$) for each 12-hour period using the following equation:

$$E_a = \frac{1}{12}\sum_{j=1}^{12} E_{hj} \qquad \text{(Eq. 2)}$$

Where:

$E_a$ = Average carbon monoxide pollutant rate for the 12-hour period, ppm corrected to 7 percent $O_2$.

$E_{hj}$ = Hourly arithmetic average pollutant rate for hour "j," ppm corrected to 7 percent $O_2$.

## Model Rule—Definitions

### § 60.3078 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

*Administrator* means:

(1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee;

(2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and

(3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

*Air curtain incinerator* means an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and subpart EEEE only, air curtain incinerators include both firebox and trench burner units.

*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

*Batch OSWI unit* means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means waste material resulting from the production or use of anti-neoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Class II municipal solid waste landfill* means a landfill that meets four criteria:

(1) Accepts, for incineration or disposal, less than 20 tons per day of municipal solid waste or other solid wastes based on an annual average;

(2) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(3) Is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and

(4) Serves a community that meets one of two criteria:

(i) Experiences for at least three months each year, an interruption in access to surface transportation, preventing access to a Class I municipal solid waste landfill; or

(ii) Has no practicable waste management alternative, with a landfill located in an area that annually receives 25 inches or less of precipitation.

*Class III municipal solid waste landfill* is a landfill that is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill, and that accepts, for disposal, either of the following two criteria:

(1) Ash from incinerated municipal waste in quantities less than one ton per day on an annual average, which ash must be free of food scraps that might attract animals; or

(2) Less than five tons per day of municipal solid waste, based on an annual average, and is not located in a place that meets either of the following criteria:

(i) Where public access is restricted, including restrictions on the right to move to the place and reside there; or

(ii) That is provided by an employer and that is populated totally by persons who are required to reside there as a condition of employment and who do not consider the place to be their permanent residence.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

*Collected from* means the transfer of material from the site at which the material is generated to a separate site where the material is burned.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Continuous emission monitoring system or CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an OSWI unit.

*Continuous OSWI unit* means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

*Deviation* means any instance in which a unit that meets the requirements in § 60.2991, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets requirements in § 60.2991 and is required to obtain such a permit; or

(3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

*Dioxins/furans* means tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*EPA* means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

*Institutional facility* means a land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose such as a school, hospital, prison, military installation, church, or other similar establishment or facility.

*Institutional waste* means solid waste (as defined in this subpart) that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit: Whose design does not provide for energy recovery (as defined in this subpart); operated without energy recovery (as defined in this subpart); or operated with only waste heat recovery (as defined in this subpart). Institutional waste also means solid waste (as defined in this subpart) combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

*Institutional waste incineration unit* means any combustion unit that combusts institutional waste (as defined in this subpart) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in § 60.2994(b)).

*Intermittent OSWI unit* means an OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

*Low-level radioactive waste* means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

*Metropolitan Statistical Area* means any areas listed as metropolitan statistical areas in OMB Bulletin No. 05–02 entitled "Update of Statistical Area Definitions and Guidance on Their Uses" dated February 22, 2005 (available on the Web at *http://www.whitehouse.gov/omb/bulletins/*).

*Modification or modified unit* means an incineration unit you have changed on or after June 16, 2006 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

(2) Any physical change in the OSWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

*Municipal solid waste* means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that: (1) The term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste, as determined by § 60.2993(b).

*Municipal waste combustion unit* means, for the purpose of this subpart and subpart EEEE, any setting or equipment that combusts municipal solid waste (as defined in this subpart) including, but not limited to, field-erected, modular, cyclonic burn barrel, and custom built incineration units (with or without energy recovery) operating with starved or excess air, boilers, furnaces, pyrolysis/combustion units, and air curtain incinerators (except those air curtain incinerators listed in § 60.2994(b)).

*Other solid waste incineration (OSWI) unit* means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in § 60.2993 as being excluded from the subpart are not OSWI units subject to this subpart. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

*Particulate matter* means total particulate matter emitted from OSWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Reconstruction* means rebuilding an incineration unit and meeting two criteria:

(1) The reconstruction begins on or after June 16, 2006.

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous OSWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent OSWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch OSWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Standard conditions*, when referring to units of measure, means a temperature of 68°F (20°C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the OSWI unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

*Very small municipal waste combustion unit* means any municipal waste combustion unit that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in § 60.3076.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

*Wet scrubber* means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation, or demolition wastes.

(3) Clean lumber.

(4) Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (*e.g.*, plywood, particle board, flake board, and oriented strand board).

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(1) Construction, renovation, and demolition wastes.

(2) Clean lumber.

**Tables to Subpart FFFF of Part 60**

As stated in § 60.3000, you must comply with the following:

TABLE 1 TO SUBPART FFFF OF PART 60.—MODEL RULE—COMPLIANCE SCHEDULE

| Complete this action | By this date [a] |
|---|---|
| Final compliance [b] ..... | (Dates to be specified in State plan) [c]. |

[a] Site-specific schedules can be used at the discretion of the State.

[b] Final compliance means that you complete all process changes and retrofit of control devices so that, when the incineration unit is brought on line, all process changes and air pollution control devices necessary to meet the emission limitations operate as designed.

[c] The date can be no later than 3 years after the effective date of State plan approval or December 16, 2010, whichever is earlier.

As stated in § 60.3022, you must comply with the following:

TABLE 2 TO SUBPART FFFF OF PART 60.—MODEL RULE—EMISSION LIMITATIONS

| For the air pollutant | You must meet this emission limitation [a] | Using this averaging time | And determining compliance using this method |
|---|---|---|---|
| 1. Cadmium ..... | 18 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 2. Carbon monoxide .... | 40 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS [b]. | Method 10, 10A, or 10B of appendix A of this part and CEMS. |
| 3. Dioxins/furans (total basis). | 33 nanograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 23 of appendix A of this part. |

TABLE 2 TO SUBPART FFFF OF PART 60.—MODEL RULE—EMISSION LIMITATIONS—Continued

| For the air pollutant | You must meet this emission limitation[a] | Using this averaging time | And determining compliance using this method |
|---|---|---|---|
| 4. Hydrogen chloride ... | 15 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Method 26A of appendix A of this part. |
| 5. Lead ..... | 226 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 6. Mercury ..... | 74 micrograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Method 29 of appendix A of this part. |
| 7. Opacity ..... | 10 percent ..... | 6-run average (1 hour minimum sample time per run). | Method 9 of appendix A of this part. |
| 8. Oxides of nitrogen ... | 103 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Method 7, 7A, 7C, 7D, or 7E of appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Methods 7 and 7C only. |
| 9. Particulate matter .... | 0.013 grains per dry standard cubic foot. | 3-run average (1 hour minimum sample time per run). | Method 5 or 29 of appendix A of this part. |
| 10. Sulfur dioxide ..... | 3.1 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Method 6 or 6C of appendix A of this part, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Method 6 only. |

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b] Calculated each hour as the average of the previous 12 operating hours.

As stated in § 60.3023, you must comply with the following:

TABLE 3 TO SUBPART FFFF OF PART 60.—MODEL RULE—OPERATING LIMITS FOR INCINERATORS AND WET SCRUBBERS

| For these operating parameters | You must establish operating limits | And monitoring using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording | Averaging time |
| 1. Charge rate ..... | Maximum charge rate ..... | Continuous ..... | Every hour ..... | Daily for batch units. 3-hour rolling for continuous and intermittent units.[a] |
| 2. Pressure drop across the wet scrubber or amperage to wet scrubber. | Minimum pressure drop or amperage. | Continuous ..... | Every 15 minutes ..... | 3-hour rolling.[a] |
| 3. Scrubber liquor flow rate | Minimum flow rate ..... | Continuous ..... | Every 15 minutes ..... | 3-hour rolling.[a] |
| 4. Scrubber liquor pH ..... | Minimum pH ..... | Continuous ..... | Every 15 minutes ..... | 3-hour rolling.[a] |

[a] Calculated each hour as the average of the previous 3 operating hours.

As stated in § 60.3039, you must comply with the following:

TABLE 4 TO SUBPART FFFF OF PART 60.—MODEL RULE—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

| For the following pollutants | Use the following span values for your CEMS | Use the following performance specifications (P.S.) in appendix B of this part for your CEMS | If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part to collect data |
|---|---|---|---|
| 1. Carbon Monoxide ..... | 125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit. | P.S.4A ..... | Method 10. |
| 2. Oxygen ..... | 25 percent oxygen ..... | P.S.3 ..... | Method 3A or 3B, or ANSI/ASME PTC 19.10–1981 (IBR, see § 60.17(h)) in lieu of Method 3B only. |

As stated in § 60.3048, you must comply with the following:

TABLE 5 TO SUBPART FFFF OF THE PART 60.—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS

| Report | Due date | Contents | Reference |
|---|---|---|---|
| 1. Initial test report | a. No later than 60 days following the initial performance test | i. Complete test report for the initial performance test; and. | § 60.3049. |
| | | ii. The values for the site-specific operating limits. | § 60.3049. |
| 2. Waste management plan | a. No later than 60 days following the initial performance test | i. Reduction or separation of recyclable materials; and. | §§ 60.3010 through 60.3012. |
| | | ii. Identification of additional waste management measures and how they will be implemented. | §§ 60.3010 through 60.3012. |
| 3. Annual Report | a. No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report | i. Company Name and address; .. | §§ 60.3050 and 60.3051. |
| | | ii. Statement and signature by the owner or operator;. | §§ 60.3050 and 60.3051. |
| | | iii. Date of report; ..... | §§ 60.3050 and 60.3051. |
| | | iv. Values for the operation limits; | §§ 60.3050 and 60.3051. |
| | | v. If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period;. | §§ 60.3050 and 60.3051. |
| | | vi. Highest and lowest recorded 12-hour averages, as applicable, for carbon monoxide emissions and highest and lowest recorded 3-hour averages, as applicable, for each operating parameter recorded for the calendar year being reported;. | §§ 60.3050 and 60.3051. |
| | | vii. Information for deviations or malfunctions recorded under § 60.2949(b)(6) and (c) through (e);. | §§ 60.3050 and 60.3051. |
| | | viii. If a performance test was conducted during the reporting period, the results of the test;. | §§ 60.3050 and 60.3051. |
| | | ix. If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2934(a) or (b) were met; and. | §§ 60.3050 and 60.3051. |
| | | x. Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks. | §§ 60.3050 and 60.3051. |
| 4. Emission limitation or operating limit deviation report. | a. By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year | i. Dates and times of deviation; .... | §§ 60.3052 and 60.3053. |
| | | ii. Averaged and recorded data for those dates;. | §§ 60.3052 and 60.3053. |
| | | iii. Duration and causes of each deviation and the corrective actions taken.. | §§ 60.3052 and 60.3053. |
| | | iv. Copy of operating limit monitoring data and any test reports;. | §§ 60.3052 and 60.3053. |
| | | v. Dates, times, and causes for monitor downtime incidents;. | §§ 60.3052 and 60.3053. |
| | | vi. Whether each deviation occurred during a period of start-up, shutdown, or malfunction; and. | §§ 60.3052 and 60.3053. |
| | | vii. Dates, times, and duration of any bypass of the control device. | §§ 60.3052 and 60.3053. |

TABLE 5 TO SUBPART FFFF OF THE PART 60.—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS—Continued

| Report | Due date | Contents | Reference |
|---|---|---|---|
| 5. Qualified operator deviation notification. | a. Within 10 days of deviation | i. Statement of cause of deviation; | §60.3054(a)(1). |
| | | ii. Description of efforts to have an accessible qualified operator; and. | §60.3054(a)(1). |
| | | iii. The date a qualified operator will be accessible. | §60.3054(a)(1). |
| 6. Qualified operation deviation status report. | a. Every 4 weeks following deviation | i. Description of efforts to have an accessible qualified operator;. | §60.3054(a)(2). |
| | | ii. The date a qualified operator will be accessible; and. | §60.3054(a)(2). |
| | | iii. Request to continue operation | §60.3054(a)(2). |
| 7. Qualified operator deviation notification of resumed operation. | a. Prior to resuming operation | i. Notification that you are resuming operation. | §60.3054(b). |

**Note:** This table is only a summary, see the referenced sections of the rule for the complete requirements.

[FR Doc. 05–23716 Filed 12–15–05; 8:45 am]
BILLING CODE 6560–50–P

EPA-APPROVED TENNESSEE NON-REGULATORY PROVISIONS

| Name of nonregulatory SIP provision | Applicable geographic or nonattainment area | State effective date | EPA approval date | Explanation |
|---|---|---|---|---|
| * | * | * | * | * |
| 8-Hour Ozone Maintenance plan for the Montgomery County, Tennessee area. | Montgomery County ..... | 08/10/2005 | 09/22/2005 [Insert first page of publication] | |

**PART 81—[AMENDED]**

■ 1. The authority citation for part 81 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

■ 2. In § 81.318, the table entitled "Tennessee-Ozone (8-Hour Standard)" is amended by revising the entry for "Clarksville-Hopkinsville, TN–KY: Montgomery County" to read as follows:

**§ 81.343 Tennessee.**

* * * * *

TENNESSEE—OZONE

[8-Hour Standard]

| Designated area | Designation [a] | | Category/Classification | |
|---|---|---|---|---|
| | Date [b] | Type | Date [b] | Type |
| * | * | * | * | * |
| Clarksville-Hopkinsville, TN–KY Area: Montgomery County ..... | October 24, 2005 | Attainment. | | |
| * | * | * | * | * |

[a] Includes Indian Country located in each county or area, except as otherwise specified.
[b] This date is June 15, 2004, unless otherwise noted.

* * * * *

[FR Doc. 05–18953 Filed 9–21–05; 8:45 am]
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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 60

[OAR–2003–0119; FRL–7971–9]

RIN 2060–AN31

### Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule; amendments.

**SUMMARY:** The EPA has completed its reconsideration of certain regulatory definitions that determine the type of sources subject to EPA's new source performance standards (NSPS) and emission guidelines (EG) for commercial and industrial solid waste incineration (CISWI) units under section 129 of the Clean Air Act (CAA). With this action, EPA is promulgating revised definitions for the terms "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit." The final CISWI definitions of these terms promulgated today are consistent with EPA's February 2004 reconsideration proposal in that EPA will continue to identify CISWI units based on whether such units combust waste without energy recovery. However, the revised definitions promulgated today do not include certain regulatory language proposed in February 2004 to include units with only waste heat recovery in the CISWI source category. In a subsequent rulemaking action, EPA intends to propose additional regulatory language to address units with only waste heat recovery and assess the impacts of the inclusion of these units in the CISWI source category. As a result of our action today on the CISWI definitions, it is not necessary to make any corresponding revisions to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters.

**DATES:** The final rule is effective September 22, 2005.

**ADDRESSES:** *Docket:* EPA has established a docket for this action under Docket ID No. OAR–2003–0119. All documents in the docket are listed in the EDOCKET index at *http://www.epa.gov/edocket.* Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the EPA Docket Center (EPA/DC), EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

**FOR FURTHER INFORMATION CONTACT:** Mr. Brian Shrager, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–7689; e-mail address: *shrager.brian@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

*Judicial Review.* Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by November 21, 2005. Under section 307(d)(7)(B) of the CAA, only an

objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

*Organization of This Document.* The following outline is provided to aid in locating information in this preamble.

I. General Information
A. Does this action apply to me?
II. Summary of Final Action
III. Background Information
A. Statutory Background
B. Regulatory Background
C. Significance of the Definitions
IV. Final Definitions for the CISWI Rules
V. Response to Public Comments and Significant Changes
A. General Comments on Definitions
B. Comments on the Definition of CISWI Unit
C. Comments on the Definition of Commercial or Industrial Waste
D. Comments on the Definition of Solid Waste
E. Comments on the Rulemaking Process
VI. Relationship to NESHAP for Boilers and Process Heaters
VII. Impacts of the Final Rules
VIII. Future Actions on the Final CISWI Rules
IX. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

## I. General Information

### A. Does This Action Apply to Me?

*Regulated Entities.* The CISWI rules potentially affect the following categories of sources:

| Category | NAICS code | SIC code | Examples of potentially regulated entities |
|---|---|---|---|
| Any industry using a solid waste incinerator as defined in the regulations. | 325 | 28 | Manufacturers of chemicals and allied products. |
| | 335 | 36 | Manufacturers of electronic equipment. |
| | 421 | 50 | Manufacturers of wholesale trade, durable goods. |
| | 321, 337 | 24, 25 | Manufacturers of lumber and wood furniture. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities that could be affected by this action. Other types of entities not listed in this table could also be affected. To determine whether your facility, company, or business organization is regulated by this action, you should examine the final definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" in this action and the applicability criteria in 40 CFR 60.2010 through 60.2025, subpart CCCC, and 40 CFR 60.2505 and 60.2550 through 60.2558, subpart DDDD.

*Docket.* The docket number for this action is OAR–2003–0119.

*Worldwide Web (WWW).* In addition to being available in the docket, an electronic copy of the notice of final rules is available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA will post a copy of the notice of final rules on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn*. The TTN provides information and technology exchange in various areas of air pollution control.

## II. Summary of Final Action

By this action, EPA concludes the reconsideration process on the December 2000 final CISWI rules that it initiated in February 2004, in response to a petition for reconsideration submitted pursuant to section 307(d)(7)(B) of the CAA. Specifically, the EPA has concluded its reconsideration of several definitions that determine which types of sources are subject to the NSPS and EG for CISWI units under section 129 of the CAA.

EPA promulgated the definitions in the final rules for CISWI units on December 1, 2000. Subsequent to promulgation of the final CISWI rules, the Agency granted a petition for reconsideration related to the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit" in the CISWI final rules. EPA solicited public comments on revised definitions for these terms and the definition of "solid waste" in a notice published in the **Federal Register** on February 17, 2004. (See 69 FR 7390.) In that notice, we requested comments on the approach we used in the December 2000 final rules to identify CISWI units based on whether the unit was combusting solid waste without energy recovery. We also proposed to include units with only waste heat recovery in the CISWI source category to fill a gap between our CISWI rules and our NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated under CAA section 112.

In addition, after promulgation of the final CISWI rules in 2000, EPA accepted a voluntary remand, without vacature, in response to a petition for review challenging the rules. Because the final rules were not vacated, the requirements of the final CISWI rules remain in effect during the remand. In a future rulemaking action on the remand, we will reconsider the emissions limitations for CISWI units in accordance with guidelines set forth in a related court decision pertaining to hazardous waste combustors which was issued after we promulgated the final CISWI rules. However, before we may complete the rulemaking action on remand, it is necessary to resolve the issues raised in the petition for reconsideration that potentially affect the scope of the CISWI source category. This is because EPA must consider the emissions of the best performing sources in the source category to determine the applicable emissions limitations. Thus, we are announcing today our final decision after reconsidering the definitions that determine the scope of the CISWI source category so that we may focus on the relevant sources in our rulemaking action on the remand. Today's action amends the final rules to incorporate new definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit." In the discussion below, we set forth and explain the language in the new definitions.

The definitions we are promulgating today are nearly the same as those

proposed on February 17, 2004. (See 69 FR 7396.) However, in response to comments received, we clarified the proposed definition of "commercial or industrial waste" and made editorial changes to other definitions to reduce repetition among the definitions and to better express our intent.

In addition, we removed the term "waste heat recovery" from the proposed definition of "commercial or industrial waste" and are not adopting a final definition of "waste heat recovery" at this time. We intend to propose additional language to address units with only waste heat recovery and to assess the impacts of including such sources in the CISWI source category during completion of our rulemaking action in response to the voluntary remand. At that time, EPA will also address several other issues relevant to the remand, such as the emissions limitations for the CISWI source category.

The revisions to the definitions adopted today are not intended to change the existing scope [1] of the CISWI source category. After further review on reconsideration, EPA continues to believe that the key consideration in determining whether a unit is burning commercial or industrial waste is the primary function of the combustion unit and that the primary indicator of function is whether or not a unit is designed and operated for energy recovery. We define energy recovery as the recovery of heat (thermal energy) for a useful purpose. Thus, we are not amending the definition of "energy recovery" that we promulgated in the December 2000 final CISWI rules.

Today's action also addresses a related question of whether EPA should amend regulations that determine the scope of the NESHAP for the Industrial, Commercial, and Institutional Boilers and Process Heaters source category (boilers NESHAP). Those regulations (40 CFR part 63, subpart DDDDD) were promulgated under CAA section 112. (See 69 FR 55218, September 13, 2004.) We determined that conforming amendments to the boilers NESHAP are not necessary because the definitions of "boilers" and "process" heaters in that rule are consistent with the CISWI definitions we are announcing today.

[1] The inclusion of waste heat recovery sources would change the scope of the CISWI source category if we take final action to include such sources in the CISWI source category in our response to the voluntary remand.

## III. Background Information

### A. Statutory Background

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to promulgate emissions standards and other requirements for "each category of solid waste incineration units" (42 U.S.C. 7429(a)(1)). Section 129(a)(1) of the CAA identifies five categories of solid waste incineration units:

(1) Units with a capacity of greater than 250 tons per day combusting municipal waste;

(2) Units with a capacity equal to or less than 250 tons per day combusting municipal waste;

(3) Units combusting hospital, medical and infectious waste;

(4) Units combusting commercial or industrial waste; and

(5) Unspecified "other categories of solid waste incineration units."

For each category of incineration unit identified under CAA section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter (PM), sulfur dioxide ($SO_2$), hydrogen chloride (HCl), oxides of nitrogen ($NO_X$), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans) and for opacity as appropriate. Section 129 provides EPA with the discretion to establish emissions limitations for other pollutants as well.

Section 129 of the CAA directs EPA to set maximum achievable control technology (MACT) type standards for incinerators. EPA's standards under section 129 must "reflect the maximum degree of reduction in emissions of air pollutants listed under section (a)(4) (identified above) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category." (See CAA section 129(a)(2).) However, the standards for new units must not be "less stringent than the emissions control that is achieved in practice by the best controlled similar unit," and the standards for existing sources must not be "less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category." (See CAA section 129(a)(2).)

In addition, the statute provides some guidance on which units EPA should and should not regulate under CAA section 129. However, the statute does not define "commercial or industrial waste." Section 129(g)(1) of the CAA defines the term "solid waste incineration unit" as a unit "which combusts any solid waste material from commercial or industrial establishments or the general public." Section 129(g)(1) also identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA.

Furthermore, CAA section 129(g)(6) states that the term "solid waste * * * shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act." Finally, CAA section 129(h) states that "no solid waste incineration unit subject to performance standards under this section and section 111 shall be subject to standards under section 112(d) of this Act."

### B. Regulatory Background

One important part of EPA's rulemaking process is determining what universe of sources will be subject to regulation. With regard to CISWI units, the statutory provisions of CAA sections 129(a), (g) and (h) collectively provide that EPA must determine, as a part of the regulatory process, which combustion units should be subject to regulation under section 129. Section 129 does not resolve this question, but it does provide some important guiding principles. For example, section 129(g)(1) provides that a solid waste incineration unit does not include incinerators or other units required to have a permit under section 3005 of the SWDA, which includes any units burning hazardous solid wastes. This statutory language effectively limits the scope of EPA's authority under section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. Similarly, the language of section 129(h) makes clear the Congressional intent for EPA to regulate nonhazardous combustion sources under either section 129 or section 112, but not both. Thus, for the CISWI source category, in particular, EPA must determine which sources are commercial and industrial solid waste incineration units under section 129, and which combustion units are subject to section 112, such as boilers and process heaters.

The EPA proposed regulations for CISWI units on November 30, 1999. (See 64 FR 67092.) The proposal included

emissions limitations and a detailed definition of "solid waste" that was intended to distinguish between nonhazardous solid wastes and other materials (*e.g.*, hazardous solid waste and fuel) burned in combustion units at commercial or industrial facilities. The definition served to identify those units that would be considered commercial and industrial nonhazardous solid waste incineration units, and, therefore, subject to the proposed regulations. In addition, consistent with CAA section 129(h), these definitions also helped to identify those units which would not be subject to emission standards under CAA section 112.

After receiving public comment, EPA determined that the 1999 proposed definition of "solid waste" was unworkable for purposes of identifying CISWI units. Instead of adopting the proposed definition of "solid waste," EPA adopted a general definition of "solid waste" that closely mirrored the definition of solid waste found at section 6903(27) of the SWDA and in several places in EPA's regulations under that statute. (See 65 FR 75338, December 1, 2000.) EPA also adopted more specific definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit," to identify more precisely those units at commercial and industrial facilities covered by the final CISWI rules.

Under the December 2000 final CISWI rules, a material burned at a commercial or industrial facility in a combustion unit without energy recovery is a commercial or industrial waste, and the unit is subject to the CISWI rules. However, a material burned at a commercial or industrial facility in a combustion unit with energy recovery is not considered a commercial and industrial waste, nor is the combustion unit considered a commercial and industrial solid waste incineration unit for purposes of the CISWI rules.[2]

[2] In addition, EPA adopted a number of specific exemptions and additional definitions in the final CISWI rules, to ensure that the emissions limitations did not apply to units that should not be considered commercial and industrial solid waste incineration units. These exemptions and definitions served to identify and exempt: (1) Pathological solid waste incineration units; (2) agricultural solid waste incineration units: (3) municipal solid waste incineration units; (4) hospital, medical and infectious solid waste incineration units; (5) qualifying small power production facilities; (6) qualifying cogeneration facilities; (7) hazardous solid waste incineration units; (8) material recovery units; (9) certain air curtain incinerators; (10) cyclonic barrel burners; (11) rack, part, and drum reclamation units; (12) cement kilns; (13) sewage sludge incinerators; (14) chemical recovery units; and (15) laboratory analysis units.

After promulgation of the final CISWI rules, EPA received a petition for reconsideration of the final rules. The petition argued that the final rules were procedurally defective because EPA had failed to provide adequate notice and an opportunity to comment on the definitions adopted in the final rulemaking. Additionally, an environmental organization filed a petition for review in the U.S. Court of Appeals for the D.C. Circuit. Furthermore, after promulgation of the final CISWI rules, the D.C. Circuit issued its decision in *Cement Kiln Recycling Coalition* v. *EPA*, 255 F.3d 855 (D.C. Cir. 2001). In this decision, the Court rejected certain common elements of EPA's MACT methodology. As a result, EPA requested a voluntary remand of the final CISWI rules, in order to address concerns related to the issues that the Court had raised in the Cement Kiln decision.

The EPA granted the petition for reconsideration on the definitional issues. On February 17, 2004 (69 FR 7390), EPA initiated proceedings on the definitional issues by publishing a notice to solicit comments on revisions to the definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" and a new definition of the term "waste heat recovery." The February 17, 2004 notice proposed the following definitions:

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Commercial or industrial waste* means solid waste (as defined in this subpart) combusted for reasons that do not include the recovery of heat for a useful purpose, or combusted without heat recovery or with only waste heat recovery (*i.e.*, no heat recovery in the combustion firebox), in an enclosed unit using controlled flame combustion that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air); or solid waste combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and (2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in section 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases by convective heat transfer only.

These definitions were similar to the definitions in the December 1, 2000 final CISWI rules, except that we proposed that materials combusted at commercial or industrial facilities in units with only waste heat recovery would be considered commercial or industrial waste and that such units would become subject to the CISWI rules. This proposed change addressed an unintended regulatory gap where units with only waste heat recovery were not covered by CAA section 112 boilers NESHAP or by the CISWI rules. The statutory and regulatory background and rationale for the proposed changes to the definitions are fully described in the February 17, 2004 notice of proposed rule and solicitation of comments. (See 69 FR 7390.)

The action published today summarizes and responds to public comments received in response to the February 17, 2004 notice and announces EPA's final decisions on the definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration (CISWI) unit" for the CISWI rules. The specific wording of the final definitions

is printed later in this action. EPA is amending the CISWI rules such that the final definitions will take effect immediately. EPA is not taking final action today, however, on the February 2004 proposed addition of certain regulatory language concerning waste heat recovery units. EPA currently intends to propose additional language to amend the CISWI rules to cover units with only waste heat recovery when we take final action in response to the voluntary remand of the CISWI rules.

### C. Significance of the Definitions

The definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" define the scope of applicability of the final CISWI rules. Since any unit regulated under CAA section 129 cannot be subject to any rule developed under CAA section 112, these definitions also help to clarify the scope of applicability of certain other rules that EPA has or will develop for other types of combustion units.

In this case, combustion units that are not covered by the final CISWI rules may be subject to regulation, for example, under the boilers NESHAP (40 CFR part 63, subpart DDDDD).[3] Many of the combustion units at commercial or industrial facilities (*e.g.*, boilers or steam generating units, process heaters, furnaces, and incinerators) burn "solid" materials. If the solid materials in question are covered by the definition of "commercial or industrial waste," the units will be regulated as CISWI units under CAA section 129. Conversely, if the materials are not covered by the definition of "commercial or industrial waste" or if these materials are hazardous solid waste or solid materials burned for chemical or material recovery, the units will be regulated under CAA section 112 or other statutory authority.

The process of determining the regulatory dividing line between different rules is not unique to CISWI. Nor does the identification of the scope of one rule necessarily define the scope of another or preclude EPA from adjusting the regulatory division in a subsequent rule.

[3] Alternatively, such units might be subject to regulation under any number of other EPA regulations, including, for example, regulations promulgated pursuant to CAA section 112(c)(3) and (k) to control emissions from industrial, commercial and institutional boilers that are area sources and various other regulations developed under section 112 which cover combustion units burning solid materials to recover their chemical or other material constituents (*e.g.*, black liquor boilers or furnaces at kraft pulp mills covered under the national emission standards for hazardous air pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills).

## IV. Final Definitions for the CISWI Rules

For purposes of the CISWI rules, we are amending the definitions of the terms "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration (CISWI) unit" as follows:

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Commercial or industrial waste* means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: (1) Whose design does not provide for energy recovery (as defined in this subpart); or (2) operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and (2) the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in section 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

The EPA will continue to define the term "energy recovery" as follows:

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

The major differences between the definitions we are promulgating today for the CISWI rules and those proposed on February 17, 2004 (69 FR 7396), are that we have removed the language in the proposed definition of "commercial or industrial waste" that served to include units with only waste heat recovery in the CISWI source category, and we are not promulgating the definition of "waste heat recovery" at this time. We are not taking final action today on these changes because we have not yet had an opportunity to assess the impacts of including units with waste heat recovery in the CISWI rules. An impacts assessment is necessary, but is best done when we respond to the CISWI remand and can perform comprehensive analyses that address the addition of waste heat recovery units, any questions on the applicability of the CISWI rules raised by promulgation of the CAA section 129 rules for the other solid waste incineration (OSWI) source category, and the remand issues regarding determination of the MACT floor and emission limits. When we respond to the remand of the CISWI rules, we currently plan to propose additional regulatory language to address units with only waste heat recovery and to provide opportunity for additional comment on the inclusion of these units in the CISWI source category.

Otherwise, as explained further below, we made editorial changes to the definition of "commercial or industrial waste" and other definitions to reduce repetition among the definitions and better express our intent. For example, we use the term "energy recovery" in the final definition of "commercial or industrial waste" to incorporate our existing definition rather than repeating the words "recovery of heat for a useful purpose."

## V. Response to Public Comments and Significant Changes

Twelve public comment letters were received from a wide variety of sources, consisting mainly of government agencies, environmental organizations, industry and utility associations, and owner/operators of incinerators and

other types of facilities. The most significant comments are summarized and addressed below. Other significant comments are summarized and addressed in a comment and response document contained in the docket.

*A. General Comments on Definitions*

*Comment:* One commenter stated that EPA's attempts to fabricate ambiguity in CAA section 129 are without merit. The commenter stated that, regardless of whether EPA has discretion to draw the line between different types of solid waste combustion units, the agency does not have the discretion to exempt any such units from regulation under section 129 (except for those expressly enumerated in section 129(g)(1)). The commenter added that, contrary to EPA's claim, the critical question is not whether a unit "is designed and operated to recover heat for a useful purpose," but, rather, "does the unit combust solid waste?" Finally, the commenter added that, read as a whole, section 129 requires that the CISWI rules must apply to all combustion units that burn waste from commercial and industrial facilities. The commenter contended that EPA's narrow definitions of "commercial or industrial waste" and "commercial and industrial solid waste incineration unit" unlawfully exempt the majority of CISWI units from regulation under section 129. The commenter also pointed out that most CISWI units fall below the major source threshold established in CAA section 112(a). The commenter viewed EPA's definitions in the CISWI rules as an attempt to regulate many sources under section 112 instead of regulating all sources under section 129. Section 112 requires emissions standards based on generally available control technology (GACT) for non-major sources.

*Response:* EPA disagrees with the commenter. Contrary to the commenter's assertion, CAA section 129 is ambiguous because it does not contain definitions of certain terms. The EPA has reasonably interpreted section 129 in establishing the regulatory definitions described in this action. The statutory provisions of sections 129(a), (g), and (h) of the CAA collectively call for EPA to determine, as part of the regulatory process, which combustion units should be subject to regulation under section 129. Section 129 of the CAA directs EPA to promulgate standards under section 111 applicable to "solid waste incineration units combusting commercial or industrial waste". (See 42 U.S.C. 7429(a)(1)(D).) However, section 129 does not define commercial or industrial waste. Inherent in EPA's implementation of this statutory provision is the discretion to reasonably define what constitutes this undefined type of solid waste. Furthermore, CAA section 129(h) provides that nonhazardous combustion sources shall not be regulated under both section 129 and section 112. Thus, for the CISWI rules, EPA must determine which types of sources are included in the CISWI source category.

The distinction between CISWI units and non-CISWI combustion units is not readily apparent. For example, there is general agreement that burning coal in a coal-fired boiler is not commercial or industrial waste, because coal is commonly thought of as a fuel. However, there are many other materials that are burned in commercial and industrial boilers for energy recovery. Such materials include wood, other biomass, bagasse burned in boilers at sugar plants to produce the heat needed to refine sugar from sugar cane, and many other materials generated as part of commercial or manufacturing activities. When these materials are burned in a boiler to recover heat for a useful purpose, it is reasonable to consider these materials, like coal, to be a fuel and distinct from commercial and industrial solid waste. Combustion of such materials, when burned in a boiler that recovers energy for a useful purpose, is not considered waste combustion and is appropriately addressed under CAA section 112 regulations for boilers (*e.g.*, the boilers NESHAP and area source boilers standards). On the other hand, if materials were burned in a combustion unit without heat recovery, the combustion would serve no useful purpose other than destruction or disposal of an unwanted material, and EPA would then consider it appropriate to identify the material as a commercial or industrial waste and regulate the combustion unit under CAA section 129 as a CISWI unit.

In addition, many units that are designed and operated for energy recovery and predominantly burn materials that are widely considered fuels will occasionally fire small amounts of other materials in these units that could be considered waste in some circumstances. However, these units continue to recover energy from the combustion of these additional materials. Thus, it is not immediately clear how EPA should classify such units that are designed and operated for energy recovery but occasionally combust waste-like materials.

EPA has determined that for purposes of the final CISWI rules, the critical consideration in determining whether the unit is burning commercial or industrial waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated to recover energy for a useful purpose. Accordingly, we are promulgating definitions of "commercial or industrial waste" and "CISWI unit" to include in the CISWI rules units whose design does not provide for energy recovery or that are operated without energy recovery. We continue to define energy recovery as the recovery of heat (thermal energy) for a useful purpose. The revised definition of "commercial or industrial waste" does not change the existing scope of the CISWI source category, but contains editorial revisions to more clearly express our intent, as described further below.

The determination that units (such as boilers) that recover energy for a useful purpose are not subject to the final CISWI rules does not exclude them from regulation. As noted earlier, EPA has already regulated commercial and industrial boilers and process heaters located at major sources under 40 CFR part 63, subpart DDDDD (the boilers NESHAP). EPA is addressing commercial and institutional boilers and process heaters located at area sources under the CAA section 112 area source boilers standards, currently under development. Additionally, other categories of specialty combustion units, such as hazardous waste combustors and cement kilns are regulated under separate section 112 NESHAP. Section 112 addresses hazardous air pollutants such as hazardous metals, organic compounds, and HCl.

*Comment:* One commenter pointed out that despite EPA's claim that it has "considerable discretion to regulate a variety of sources as solid waste incinerators," CAA section 129(a)(1) requires EPA to "establish performance standards and other requirements pursuant to section 7411 of this title and this section for each category of solid waste incineration units." (See 42 U.S.C. 7429(a)(1)(A) (emphasis added).) The commenter believes these categories are very broad, based on language in section 129(g)(1), which defines "solid waste incineration unit" to mean "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments." (See 42 U.S.C. 7429(g)(1).) The commenter also argued that the text of section 129 shows that Congress expressly considered the issue of whether to regulate heat recovery units under section 129 by providing only limited, specific exemptions. Thus, according to the commenter's

interpretation of the statute, EPA must set section 129 standards for any unit that combusts any solid waste, with the narrow exception of the categories of energy recovery units specifically enumerated in section 129(g)(1). The commenter also asserts that EPA acknowledged this position in the hospital, medical, and infectious waste incinerator (HMIWI) rules, by stating the following:

> The EPA disagrees with commenters that contend EPA has no authority to regulate cement kilns under section 129. Section 129(a)(1)(A) requires the Administrator to establish performance standards and other requirements for each category of solid waste incineration units. Congress specifically listed in section 129 various categories of solid waste incineration units that EPA must regulate. Section 129(g)(1) broadly defines solid waste incineration unit as "a distinct operating unit of any facility which combusts any solid waste material * * *" This definition clearly indicates Congress' intent to regulate more than just incinerators because the definition sweeps within its scope any facility that is combusting any solid waste.

*Response:* Inherent in EPA's implementation of CAA section 129 is the discretion to identify the types of sources covered by the statutorily undefined category of commercial or industrial solid waste incineration units. Considered as a whole, the statutory provisions of section 129(a), (g), and (h) require that EPA determine, as part of the regulatory process, which combustion units should be subject to regulation under section 129. For example, as explained in the previous response, EPA has determined that boilers combusting materials for energy recovery are subject to section 112 and hence, are not subject to section 129.

The commenter relies on the statutory definition of solid waste incineration unit to argue that any unit combusting any solid waste at any time should be covered under CISWI. However, we do not agree with this broad interpretation of the definition of "solid waste incineration unit" based on the use of the modifier "any." We believe the word "any" should be interpreted within the broader frame of reference of its statutory context, consistent with observations of the Supreme Court in *Nixon* v. *Missouri Municipal League*, 541 U.S. 125, 124 S. Ct. 1555 (2004). In this recent opinion, the Court observed that Congress's understanding of "any" can differ depending on the statutory setting. (See 124 S. Ct. at 1561.) *Nixon* and a related line of cases support looking for indications in the statute that suggest a more limited meaning of the modified term is possible or intended. (See 70 FR 33838, 33842 (June 10, 2005).) Indications of a more limited meaning can be found within the definition of solid waste incineration unit in CAA section 129(g)(1) and CAA section 129(h).

The commenter argues that EPA should stop reading the definition of "solid waste incineration unit" in CAA section 129(g)(1) after the phrase "any solid waste material." Thus, according to the commenter, a CISWI unit must include "any facility which combusts any solid waste material." However, the commenter fails to give meaning to the remainder of the sentence in section 129(g)(1), which provides that a solid waste incineration unit under section 129 includes a facility that combusts "any solid waste material from commercial or industrial establishments." There is a distinction between "any solid waste material" and "any solid waste material from commercial or industrial establishments." In order to identify solid waste material from commercial and industrial establishments, we have promulgated a definition of "commercial or industrial waste" which incorporates the broader definition of "solid waste." As discussed in the earlier response, because it is sometimes not obvious whether a commercial and industrial establishment treats material as a waste or as a fuel, we have developed the definition of commercial or industrial waste to identify solid waste from commercial and industrial establishments based on whether the waste is burned without energy recovery.

Moreover, we do not agree that the "small power production facilities" or "qualifying cogeneration facilities" described in CAA section 129(g)(1) are the only types of energy recovery facilities that are properly excluded from the CISWI source category. To the extent that another type of energy recovery facility is not considered to be combusting solid waste from a commercial and industrial establishment, that facility should also be excluded from the CISWI source category. We do not read section 129(g)(1) to establish an exclusive list of excluded sources. See *National Wildlife Federation* v. *Gorsuch*, 693 F.2d 156, 172 (D.C. Cir. 1982) (use of the term "includes" allows for additional, unstated meanings); *Chemehuevi Indian Tribe* v. *California St. Bd. of Equalization*, 757 F.2d 1047, 1054 (9th Cir. 1985), rev'd on different grounds, 106 S. Ct. 289 (1985) ("includes" is a term of enlargement, not of limitation); *United States* v. *Huber*, 603 F.2d 387, 394 (2d Cir. 1979), cert. denied, 100 S. Ct. 1312 (1980) (use of the word "includes," rather than a more restrictive term such as "means," indicates that the list is not exhaustive but merely illustrative).

Furthermore, the definition of "solid waste incineration unit" applies to all categories of units subject to CAA section 129. The enumerated exclusions in CAA section 129(g)(1) ensure that specific types of facilities are not included in any category under section 129. Thus, we do not read these exclusions to be an exclusive list of energy recovery facilities that are not included in the CISWI source category.

Furthermore, CAA section 129(h)(2) states that any unit subject to a section 129 standard cannot also be subject to a CAA section 112(d) standard. The rules of logic support the position that the contrapositive of that statement is equally true—any unit subject to a section 112(d) standard cannot also be subject to a section 129 standard. This indicates a Congressional intent not to give the word "any" the broad meaning suggested by the commenter because it would require that EPA periodically address units regulated by section 112 under section 129 at times when such units combust solid waste material, even if such units are designed and operated for energy recovery.

The quote cited by the commenter regarding cement kilns expressed EPA's position that we have the authority to regulate units under CAA section 129 based on their primary function. Thus, we indicated that if we determined that a unit, that might be called a cement kiln was actually functioning more like an incinerator, we would have the authority to regulate that unit under section 129 even though it was not identified as an incinerator. However, we did not make a finding at that time that we were required to regulate cement kilns under section 129 because they functioned as incinerators. In addition, it appears from the quote that we focused at that time only on the phrase "any solid waste material" without considering the additional language "from commercial or industrial establishments" that is relevant to the CISWI source category.

Ultimately, we determined that cement kilns should not be regulated in the final HMIWI rules, but instead should be regulated under CAA section 112. Cement kilns, including those burning nonhazardous solid waste for purposes of energy recovery, have been regulated since 1999 under the portland cement manufacturing industry NESHAP, which is based on MACT. The NESHAP regulates both major and area sources, and its requirements reduce emissions of PM, multiple metals,

dioxins/furans, and total hydrocarbons (which are a surrogate for other organic HAP including polycyclic organic matter (POM), benzene, toluene, and formaldehyde). The final rule has already been implemented and sources are complying with it. As discussed above, CAA section 129(h)(2) is clear that regulations under sections 129 and 112 are mutually exclusive. Accordingly, sources such as cement kilns, boilers and process heaters that are subject to section 112 standards are not CISWI units.

*Comment:* One commenter believes that electric steam generating units that are already subject to NSPS controls under 40 CFR part 60, subparts Da or Db, should not be subject to regulation under CAA section 129. The commenter stated that EPA did not consider electric utilities that co-combust solid waste with fuel in its rulemaking activities, and, therefore, EPA's regulatory impact analysis did not account for such units. The commenter urged EPA to clarify that the definitions of "commercial or industrial waste" and "commercial and industrial solid waste incineration (CISWI) unit" do not inadvertently result in the CAA section 129 program regulating electric utility boilers, including circumstances where such boilers co-combust very small amounts of nonhazardous solid waste with fuel during the production of power. An example is periodic boiler cleaning, when deposits that accumulate on the interior of boiler tube walls are removed with a cleaning agent. The resulting material is combusted in the boiler with fuel while the boiler is being operated to recover energy and produce power. Combustion is a highly effective method of destroying such materials. The commenter pointed out that EPA agreed with their comment on the November 1999 CISWI proposal that the regulatory text swept too broadly by potentially capturing the episodic circumstances in which electric utilities combust small amounts of such nonhazardous solid waste with fuel. The commenter also stated that the legislative history makes clear that Congress intended section 129 to apply only to units dedicated to solid waste combustion and cited specific legislative history supporting this point. The commenter further stated that application of section 129 to electric utility boilers would be at odds with CAA section 112, and the language of the CAA makes clear Congress's intent for EPA to regulate nonhazardous waste combustion sources under either CAA section 129 or CAA section 112, but not both.

*Response:* We agree that electric utility boilers should not be covered by the final CISWI rules because they are designed and operated for purposes of energy recovery and do not function as incinerators. We addressed this issue in the November 2000 CISWI comment response document (EPA–453/R–00–008). Electric utility boilers are regulated under authorities other than CAA section 129. Furthermore, the wording of CAA section 129(h) makes clear the Congressional intent for CAA regulations under CAA section 112 or section 129 to be mutually exclusive. In section 112(n)(1)(A), Congress set forth the limited circumstances under which EPA could regulate electric utility boilers under section 112. First Congress instructed EPA to complete a study of the hazards to public health reasonably expected to occur as a result of emissions by electric utility steam generating units of pollutants listed in section 112 after imposition of the requirements of the CAA. Then it required EPA to regulate electric utility steam generating units under section 112 if the Administrator finds such regulation is appropriate and necessary considering the results of the study required by section 112(n). EPA recently determined that it was neither appropriate nor necessary to regulate electric utility boilers under Section 112. (See 70 FR 15994, March 29, 2005.) The fact that the CAA specifically addressed electric utilities under section 112 indicates that Congress did not intend them to be regulated under section 129. Similarly, since promulgation of the final CISWI rules, EPA promulgated section 112 regulations for industrial, commercial and institutional boilers (40 CFR part 63, subpart DDDDD). That final rule applies to some electric steam generating units (*e.g.*, independent power producers). The language of CAA section 112(h) makes clear the Congressional intent for CAA regulation under section 129 or section 112 to be mutually exclusive. Accordingly, sources subject to section 112 standards are not CISWI units. We are making minor adjustments to the definition of "commercial or industrial waste" to clarify our intent that boilers operated for energy recovery are not subject to CISWI, even if such units combust, along with other fuels, a small amount of material that might, under some circumstances, be considered waste. The revised definition clarifies that the critical consideration in determining whether a unit is burning commercial or industrial waste is the function of the combustion unit, and the primary indicator of function is whether or not the unit is designed and operated to recover energy for a useful purpose.

The reference definition of energy recovery, which has not been changed, incorporates the concept of recovering thermal energy for "useful purposes." The revised definition of "commercial or industrial" waste excludes from CISWI units (such as boilers) whose design provides for energy recovery and that are operated for energy recovery. However, units designed and operated without energy recovery remain subject to the CISWI rules. Thus, we believe the revised definition of "commercial or industrial waste" is sufficiently clear to exclude utility steam generating units from the CISWI rules.

*Comment:* One commenter strongly believes that a unit that incinerates solid waste at a rate of less than 1,000 pounds per hour (lb/hr) and recovers heat from the outside of the burn chamber of the unit for useful purposes should be exempt from the final CISWI rules. The commenter believes that such units are necessary in remote locations in northern climates for disposal of small volumes of solid waste and to generate heat as a useful resource.

*Response:* The commenter has not provided any specific data to support the technical or legal basis for a size cutoff. However, at this time, waste heat recovery units are not covered under CISWI because we have not assessed the impacts of including such units in the final CISWI rules. An impacts assessment is necessary, but is best done when we respond to the CISWI remand and can perform comprehensive analyses that address the addition of waste heat recovery units, any questions on the applicability of the CISWI rules that may be raised by promulgation of rules for the OSWI source category, and remand issues regarding determination of the MACT floor and emission limits. In a subsequent rulemaking action in response to the CISWI remand, we intend to propose additional regulatory language to address units with only waste heat recovery and assess the impacts of the inclusion of these units in the CISWI source category.

*Comment:* One commenter strongly supports EPA's approach of not specifying a particular level of British thermal units per pound (Btu/lb) as a regulatory threshold. The commenter also included a discussion of the 5,000 Btu/lb threshold that EPA had previously proposed in the CISWI rules, and pointed out that valid energy recovery could be obtained from materials with lower Btu values. The commenter indicated (in attached comments submitted in response to previous rulemakings) that valid energy

recovery from the cement kiln process has been obtained with materials with heating values between 996 and 1,948 Btu/lb, but recommended that, if EPA does adopt a Btu threshold, a threshold of 3,000 Btu/lb is appropriate and conservatively high.

*Response:* The EPA agrees that a Btu threshold is not needed for reasons described in the February 2004 notice and the 2000 CISWI promulgation preamble. In the preamble to the December 1, 2000 final CISWI rules (65 FR 75342), EPA summarized commenters' statements that "* * * the universe of materials burned for energy recovery is much broader than those defined as "fuels." For example, several of today's combustion technologies and some new emerging technologies can burn materials for energy recovery having heat values less than the proposed 5,000 Btu/lb threshold for considering a material a fuel." The EPA responded that "* * * we agree that several of today's combustion technologies, including some emerging technologies, may be capable of burning materials with a heat value of less than 5,000 Btu/lb to recover energy. Therefore, we have deleted the requirement from the definition of solid waste in the final NSPS and EG." We still maintain this position. In addition to the information submitted by the commenter stating that cement kilns can recover heat from materials in the 1,000 to 2,000 Btu/lb range, EPA found examples of fluidized bed combustion units and other technologies, used at pulp and paper mills and for other utility, industrial, or commercial uses, that recover useful energy from sludges and other materials with low Btu contents (*e.g.*, in the range of 1,000 to 3,800 Btu/lb). There is no bright-line Btu value that can be used to distinguish if a material is a fuel burned for energy recovery or a waste disposed of for purposes other than energy recovery. The approach taken in the February 2004 proposed definition is more workable than a Btu/lb cutoff.

*B. Comments on the Definition of CISWI Unit*

*Comment:* One commenter supports the definition of "CISWI unit," but suggested various clarifications to better express the intent of the definitions.

*Response:* Although we did not adopt any specific language provided by the commenter, we amended the definitions to remove redundant language and to better express our intent. For example, we are removing the following phrase from the definition of "commercial or industrial waste": "(including field erected, modular, and custom built incineration units operating with starved or excess air)." This language is already contained within the definition of "CISWI unit" and need not be included in the definition of the waste.

*C. Comments on the Definition of Commercial or Industrial Waste*

*Comment:* One commenter supports EPA's definition of "commercial or industrial waste." The commenter agrees that, considering high energy costs, materials burned for heat recovery should not be considered solid waste. The commenter also agrees that materials burned without heat recovery for a useful purpose should be regulated as commercial and industrial solid waste.

*Response:* We are promulgating the definition proposed in the February 17, 2004 **Federal Register** notice, with minor clarifications, and, as described elsewhere in this preamble, we are not including units with waste heat recovery in the final CISWI rules at this time.

*Comment:* One commenter agrees with the proposed definition of "commercial or industrial waste," but suggested some rewording for clarity.

*Response:* We agree with the commenter that there is room to improve the clarity of the proposed definition and have made some modifications to the definitions of "commercial or industrial waste" with this in mind. However, we have reorganized the proposed definition in a different manner than suggested by the commenter. We believe our modified definition is clearer than the reworded definition of commercial or industrial waste provided by the commenter. The commenter's definition does not reflect our decision to omit the phrase "combusted for reasons that do not include the recovery of heat for a useful purpose" and insert the phrase "whose design does not provide for energy recovery (as defined in this subpart)" to better reflect the key principal that we discussed in the preamble of the proposed rule. Furthermore, EPA's revised definition reflects our decision not to regulate units with only waste heat recovery at this time, but to propose to regulate such units when we respond to the remand of the final CISWI rules.

*D. Comments on the Definition of Solid Waste*

*Comments:* One commenter stated that EPA's arguments about the definition of solid waste are irrelevant and without merit. Pointing to section 129(g)(6) of the CAA, which provides that solid waste shall have the meanings established by EPA pursuant to the SWDA, the commenter argues that EPA has established only one "comprehensive definition" of solid waste under the SWDA: the definition in 40 CFR 261.2. (See 69 FR 7395/2.) Furthermore, the commenter asserts that this definition was the only comprehensive definition that existed when Congress enacted section 129, which, in the commenter's view, indicates that Congress intended EPA to use that definition. The commenter made this point in an attempt to refute EPA's argument that because section 261.2 "defines solid waste specifically for purposes of identifying hazardous solid waste [it] could not serve as a regulatory definition for purposes of identifying nonhazardous solid waste under CAA section 129." The commenter pointed out that EPA has not provided a reason that this definition is unusable for identifying nonhazardous solid waste, and the refusal to use the definition is arbitrary, capricious, and unlawful. Finally, the commenter added that even if EPA were not compelled to use the definition provided in 40 CFR 261.2, EPA's attempt to provide a new definition solely for the purpose of the CISWI regulation is unlawful because the CAA provides that "solid waste" shall have the meanings established by EPA "pursuant to the Solid Waste Disposal Act."

*Response:* We disagree with the commenter. Section 129(g)(6) of the CAA states that "solid waste * * * shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act." Section 129(g) also states that the term "solid waste incineration unit" does not include units required to have a permit under section 3005 of the SWDA. This reference to section 3005 of the SWDA refers to the hazardous waste regulatory program authorized under the SWDA. This language effectively limits the scope of EPA's authority under section 129 to units that burn nonhazardous solid waste.

However, the definition of "solid waste" in section 261.2 cited by the commenter applies only to hazardous wastes, whereas the final CISWI rules apply only to nonhazardous solid wastes. To develop and implement the hazardous waste regulatory program authorized by the SWDA, EPA adopted a definition of hazardous waste pursuant to the SWDA. This definition is found in 40 CFR part 261. In defining hazardous waste, 40 CFR part 261 also defines solid waste. In doing so, 40 CFR 261.1(b)(1) states that this definition of solid waste applies only to wastes that

are hazardous for purposes of implementing subtitle C of the Resource Conservation and Recovery Act (RCRA). Section 261.1(b)(2) indicates that the 40 CFR part 261 definition identifies only some of the wastes that are considered solid wastes under other sections of RCRA.

Much of the complexity and specificity of the 40 CFR part 261 definition was unique to hazardous waste and was needed to assure that hazardous waste is properly identified, tracked, transported, and disposed of, and is not inappropriately discarded or abandoned. One U.S. Appeals Court has recognized that the words of the RCRA statute contemplate that EPA refine and narrow the definition of solid waste for the sole purpose of Subchapter C of RCRA. *Connecticut Coast Fisherman's Ass'n* v. *Remington Arms Co.*, Inc., 989 F.2d 1305, 1315 (2d Cir. 1993). This court recognized that the RCRA statute contemplated more than one definition for the term "solid waste." *Id.*

Consequently, we looked to the definition of solid waste in the SWDA and to other regulatory definitions of solid waste adopted by EPA under the authority of that statute that also apply to various types of nonhazardous solid wastes (*i.e.*, definitions found in 40 CFR part 240 through 40 CFR part 259). These definitions reflect the general definition of solid waste found in the SWDA (42 U.S.C. 6903), but they each vary slightly depending on the particular regulatory circumstances. Furthermore, these solid waste definitions found in the rules for nonhazardous solid wastes do not contain the extensive detail found in the definition of solid waste in the 40 CFR part 261 hazardous waste rules.

The fact that the language of the individual regulatory definitions of solid waste vary from definition to definition indicates that the Administrator has not adopted a single authoritative definition to identify nonhazardous solid waste under the SWDA. Because the Administrator has not adopted a single authoritative definition of nonhazardous solid waste, it is reasonable for EPA to adopt an appropriate definition for purposes of the final CISWI rules so long as it is not inconsistent with the SWDA. As described in previous **Federal Register** actions pertaining to the final CISWI rules (64 FR 67104, November 30, 1999 and 65 FR 75342, December 1, 2000) EPA has adopted, under the joint authority of the CAA and RCRA, a definition of solid waste that is used solely to identify nonhazardous solid waste for the regulatory programs authorized by CAA section 129, such as the final CISWI rules. The definition proposed in the February 2004 CISWI notice is the same as the definition previously adopted for the final CISWI rules, and we consider the definition of solid waste in the final rules to be consistent with the SWDA.

*Comment:* Several commenters support the proposed definition of "solid waste," which is the same as that already contained in 40 CFR 60.2265. One of these commenters stated that, to implement this (CISWI) rule, EPA should continue to use definitions designed to address the particular regulatory problems that it poses in the context of the CAA as a whole, rather than being bound by definitions under RCRA that were designed to serve completely different purposes. The commenters stated that, since EPA has never established a single, all-purpose definition of solid waste under RCRA, EPA was authorized to establish a definition of "solid waste" to implement CISWI, as long as that definition was consistent with RCRA. The commenter added that EPA's definition of "commercial or industrial waste" under CISWI is fully consistent with RCRA. The statute, § 1004(27), defines solid waste as discarded material. Since materials from which useful energy or raw materials are recovered are not discarded, the final CISWI rule definition fully implements the statute. The commenter added that units excluded from CISWI were not excluded from regulation under the CAA, but would instead be subject to similar standards under CAA section 112. The fact that units will be regulated should broaden EPA's discretion. The commenter supports the major aspects of the proposal.

*Response:* We agree that the proposed definition of solid waste is appropriate for the reasons set forth in our prior response. We agree that EPA has never established a single, all-purpose definition of solid waste under RCRA and that we have the authority to establish a definition of solid waste for purposes of the CISWI rules.

*E. Comments on the Rulemaking Process*

*Comment:* One commenter challenged the rulemaking process, arguing that EPA committed to convene further proceedings to allow for additional public comment on the CISWI definitions, but then finalized the boiler NESHAP under CAA section 112. In the commenter's view, this series of events rendered the reconsideration proceeding on the CISWI definitions meaningless since EPA had already decided which units would be covered under the final boiler NESHAP.

*Response:* In order to comply with a deadline established in a Consent Decree (which was negotiated and signed by counsel for the commenter), EPA was required to finalize the boilers NESHAP under CAA section 112 by February 27, 2004. As a result of this deadline, EPA did not have the ability to wait to finalize the boiler NESHAP until the conclusion of EPA's reconsideration of the CISWI definitions. The notice of proposed rulemaking on the CISWI definitions was signed by the Assistant Administrator for Air and Radiation on February 10, 2004 and published in the **Federal Register** on February 17, 2004. The Administrator signed the final boiler NESHAP on February 26, 2004, and EPA published the final rule in the **Federal Register** on September 14, 2004 after an unforeseen delay.

Because these actions occurred contemporaneously, we acknowledged in the Response to Comments document for the final boiler NESHAP that we were soliciting further comment on the CISWI definitions. See "Response to Public Comments on Proposed Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP" (Boilers RTC). In that document, we stated that "[c]hanges made to the CISWI rule in the promulgated rule that affect boilers and process heaters will be dealt with after the promulgation of the boiler MACT standards." (See Boilers RTC at 167.) Thus, we informed the public that we would take further action to address the scope of the boilers NESHAP if it was necessary after our reconsideration of the CISWI definitions.

Our final action in the boilers NESHAP on February 26, 2004 was informed by the definitions that we had proposed on February 17, 2004 in the CISWI reconsideration action. Thus, at that time, we had intended for the scope of the final boilers NESHAP to be consistent with the proposed scope of the final CISWI rules. Our rationale for the action in the final boilers NESHAP was based on what EPA proposed in the reconsideration action on the CISWI definitions. However, as shown by the statements described above, we continued to recognize that it might be necessary to make changes to the CISWI definitions and final boilers NESHAP based on public comments received on this reconsideration. We made clear that our final action in the boilers NESHAP did not preclude the possibility of further action to amend the scope of the boilers NESHAP after receiving public

comments on the scope of the CISWI definitions.

## VI. Relationship to NESHAP for Boilers and Process Heaters

Based on our conclusions in this reconsideration action for CISWI, we do not believe it is necessary to take any action to amend our NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR part 63, subpart DDDDD). The definitions in the Boilers and Process Heaters NESHAP that define the scope of the source category are consistent with our definitions for the CISWI source category. In 40 CFR part 63, subpart DDDDD, we define a boiler as "an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water." (See 40 CFR 63.7575.) In addition, we define a process heater as "an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, solid) or to heat transfer material for use in a process unit, instead of generating steam." (See 40 CFR 63.7575.) The NESHAP apply to industrial, commercial, or institutional boilers and process heaters. (See 40 CFR 63.7485.)

## VII. Impacts of the Final Rules

Today's final amendments to the definitions do not change the scope of the CISWI rules or the requirements of the rules. The amendments to the definitions are meant to clarify the intent of the definitions that were finalized as part of the December 1, 2000 final CISWI rules. Therefore, today's action does not change the economic, environmental, or other impacts of the existing CISWI rules.

The definitions as proposed in the February 17, 2004 notice would have changed the scope of the rules to include units with only waste heat recovery. While we currently intend to propose to cover these units under CISWI in the future when we conduct additional rulemaking proceedings in response to the remand, we have not performed analyses of the environmental and economic impacts associated with covering these sources under CISWI. Therefore, we are not taking final action concerning these units at this time. During the development of our response to the CISWI remand, we intend to analyze the environmental, cost, and economic impacts of requiring waste heat recovery units to comply with emission limits and other CISWI requirements, and to propose broadening the scope of the final CISWI rules to cover these sources. We will provide notice and opportunity to comment on the estimated impacts, including impacts on small entities, in our proposed response to the remand.

## VIII. Future Actions on the Final CISWI Rules

The final amendments to the definitions announced in this action will take effect immediately. As explained above, in our action on remand, we intend to propose additional changes that would cover units with only waste heat recovery in the CISWI source category, as discussed earlier. In addition, the remand action will also address such issues as the MACT floor determination, emission limits, and other questions on the applicability of the December 2000 CISWI rules and the interface with the rules for OSWI units. To properly address these issues, we will need to perform additional analyses to determine the changes that will occur to the CISWI rules and the associated impacts of these changes. To completely assess the impacts, these analyses are best performed when we are addressing all of the issues involved with the CISWI remand including, among other things, potential changes to the number of regulated units (*e.g.*, by the addition of units with only waste heat recovery) and the control techniques used in the newly expanded CISWI source category. Therefore, when we propose our response to the remand, we will take public comments on any proposed changes and their associated impacts, and then promulgate final rules.

## IX. Statutory and Executive Order Reviews

The statutory and executive order reviews described in this section reflect the fact that the final definitions contained in the CISWI rule amendments do not change the scope of the rules or the requirements of the rules. The amendments are meant to clarify the intent of the definitions that were finalized as part of the December 1, 2000, CISWI rules. In the future, we will propose any additional changes to the CISWI rules that we determine are necessary to respond to the remand. At that time, EPA will consider the combined effects of all of the regulatory changes that we will propose as part of the CISWI remand.

### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by OMB and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this action does not constitute a "significant regulatory action" because it does not meet any of the above criteria. Consequently, this action was not submitted to OMB for review under Executive Order 12866.

### *B. Paperwork Reduction Act*

This action does not impose any new information collection burden. However, the Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations at 60 CFR part CCCC and 60 CFR part DDDD under the provisions of the Paperwork Reduction Act, 44 U.S.C. § 3501 et seq. Information Collection Request (ICR) documents were previously prepared for the CISWI NSPS and the CISWI EG when they were promulgated in 2000. Both ICRs were approved by OMB and assigned OMB control numbers (OMB 2060–0450/ICR No. 1926.02 for subpart CCCC of 40 CFR part 60 and OMB 2060–0451/ICR No. 1927.02 for subpart DDDD of 40 CFR part 60). A copy of the ICR documents may be obtained from Susan Auby by mail at the Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Avenue NW., Washington, DC 20460, by e-mail at *auby.susan@epa.gov*, or by calling (202) 566–1672. A copy may also be downloaded off the Internet at *http://www.epa.gov/icr*.

The final definitions contained in the amendments to the final CISWI rules do not impact the burden estimates previously made because the definitions do not change the scope of the CISWI

rules or the requirements of the CISWI rules. Consequently, the ICRs have not been revised.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

*C. Regulatory Flexibility Act*

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule amendments.

For purposes of assessing the impacts of today's action on small entities, small entity is defined as follows:

(1) A small business that is an ultimate parent entity in the regulated industry that has a gross annual revenue less than $6.5 million (this varies by industry category, ranging up to $10.5 million for North American Industrial Classification System (NAICS) code 562213 (VSMWC)), based on Small Business Administration's size standards;

(2) A small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or

(3) A small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of the amendments to the final CISWI rules on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. The EPA previously determined that the final CISWI rules will not have a significant economic impact on a substantial number of small entities (65 FR 75348, December 1, 2000), and, therefore, determined that it was not necessary to prepare a regulatory flexibility analysis in connection with the December 1, 2000 final rules. The revised definitions contained in the final amendments to the CISWI rules do not change the scope or stringency of the CISWI rules or cause additional units to become subject to the rules. Therefore, the previous conclusion that the CISWI rules will not have a significant impact on a substantial number of small entities remains valid.

*D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act (UMRA) of 1995, Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and Tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if EPA publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, EPA must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA previously determined that the final CISWI rules do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year (65 FR 75348, December 1, 2000). Thus, the CISWI rules are not subject to the requirements of section 202 and 205 of the UMRA. In addition, EPA previously determined that the final CISWI rules contained no regulatory requirements that might significantly or uniquely affect small governments because the burden is small and the regulations do not unfairly apply to small governments. Therefore, the CISWI rules were not subject to the requirements of section 203 of the UMRA. The revised definitions contained in the final amendments to the CISWI rules do not change the scope or stringency of the CISWI rules, and therefore, do not change our previous determinations. Therefore, we have determined that the amendments to the CISWI rules are not subject to the requirements of sections 202, 203, or 205 of UMRA.

*E. Executive Order 13132: Federalism*

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under section 6 of Executive Order 13132, EPA may not issue a regulation that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. Also, EPA may not issue a regulation that has federalism implications and that preempts State law, unless EPA consults with State and local officials early in the process of developing the proposed regulation.

The final CISWI rules, including the revised definitions contained in these amendments, do not have federalism implications. The final rules will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in

Executive Order 13132. The final rules will not impose substantial direct compliance costs on State or local governments, and will not preempt State law. Thus, Executive Order 13132 does not apply to the final rule amendments.

*F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final CISWI rules, including the revised definitions contained in these amendments, do not have Tribal implications, as specified in Executive Order 13175. The rules will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rule amendments.

*G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives EPA considered.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rules, including these amendments to the definitions, are not subject to Executive Order 13045 because they are based on technology performance and not on health and safety risks.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use*

This action is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The EPA previously completed an NTTAA analysis for the final CISWI rules (65 FR 75349, December 1, 2000). The revised definitions contained in the amendments to the final CISWI rules do not involve any technical standards; thus, the requirements of section 12(d) of the NTTAA do not apply to these amendments.

*J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the notice of final rules including the revised definitions for the CISWI rules and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to Publication of the notice of final rules in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). These rules will be effective immediately upon publication in the **Federal Register**.

**List of Subjects in 40 CFR Part 60**

Environmental protection, Administrative practice and Procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: September 14, 2005.

**Stephen L. Johnson,**

*Administrator.*

■ For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

## Subpart CCCC—[AMENDED]

■ 2. Section 60.2265 is amended by:
■ a. Removing the definition of "commercial and industrial waste";
■ b. Adding the definition of "commercial or industrial waste" in alphabetical order; and
■ c. Revising the definitions of "commercial and industrial solid waste incineration (CISWI) unit" and "solid waste" to read as follows:

**§ 60.2265 What definitions must I know?**

* * * * *

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion

chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in § 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

*Commercial or industrial waste* means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: Whose design does not provide for energy recovery (as defined in this subpart); or operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

* * * * *

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

* * * * *

### Subpart DDDD—[AMENDED]

■ 3. Section 60.2875 is amended by:
■ a. Removing the definition of "commercial and industrial waste";
■ b. Adding the definition of "commercial or industrial waste" in alphabetical order; and
■ c. Revising the definitions of "commercial and industrial solid waste incineration (CISWI) unit" and "solid waste" to read as follows:

**§ 60.2875 What definitions must I know?**

* * * * *

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in § 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

*Commercial or industrial waste* means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: Whose design does not provide for energy recovery (as defined in this subpart); or operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

* * * * *

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

* * * * *

[FR Doc. 05–18825 Filed 9–21–05; 8:45 am]
BILLING CODE 6560–50–P

## DEPARTMENT OF TRANSPORTATION

### Maritime Administration

### 46 CFR Part 296

[Docket No. MARAD–2004–18489]

RIN 2133–AB62

### Maritime Security Program

**AGENCY:** Maritime Administration, Department of Transportation.

**ACTION:** Final rule.

**SUMMARY:** This rule revises and adopts as final the interim final rule published in the **Federal Register** on July 20, 2004. The Maritime Administration (MARAD) is issuing this final rule to implement provisions of the National Defense Authorization Act for Fiscal Year 2004, the Maritime Security Act of 2003 (MSA 2003). The MSA 2003 authorizes the creation of a new Maritime Security Program (MSP) that establishes a fleet of active, commercially viable, privately owned vessels to meet national defense and other security requirements and to maintain a United States presence in international commercial shipping.

**DATES:** Effective Date: This final rule is effective November 21, 2005.

**FOR FURTHER INFORMATION CONTACT:** Taylor E. Jones II, Director, Office of Sealift Support, Maritime Administration, Telephone 202–366–2323. For legal questions, call Murray Bloom, Chief, Division of Maritime Programs, Maritime Administration, 202–366–5320.

**SUPPLEMENTARY INFORMATION:**

#### Background

On October 8, 1996, the President signed the Maritime Security Act of 1996 establishing the Maritime Security Program (MSP) for FYs 1996 through 2005 to provide financial assistance of up to $2.1 million per vessel per year to operators of U.S.-flag vessels with approved MSP Operating Agreements. The MSP is funded at $98.7 million per year for each year from FY 1996 through

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–7010–3]**

**RIN A2060–AJ51**

## Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996 and Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed On or Before September 20, 1994

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule; amendment.

**SUMMARY:** We are amending the standards of performance for large municipal waste combustors by expanding the definition of mass burn rotary waterwall municipal waste combustors (MWC) to include mass burn tumbling-tile grate waterwall municipal waste combustors. This change ensures that the same emission limit is established for both types of MWC designs since they exhibit similar combustion characteristics. Since the emissions guidelines for large municipal waste combustors reference the definitions included in the standards of performance, this amendment to the standards has the effect of amending both the standards and the guidelines.

**DATES:** This direct final rule will be effective on September 10, 2001, without further notice, unless significant adverse comments are received by August 13, 2001.

If significant material adverse comments are received by August 13, 2001, this direct final rule will be withdrawn and the comments addressed in a subsequent final rule based on the proposal. If no significant material adverse comments are received, no further action will be taken on the proposal and this direct final rule will become effective on September 10, 2001.

**ADDRESSES:** By U.S. Postal Service, send comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–90–45, Subcategory IX–D, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–90–45, Subcategory IX–D, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. The EPA requests that a separate copy of each public comment be sent to the contact person listed below.

**FOR FURTHER INFORMATION CONTACT:** Mr. Fred Porter, Combustion Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, North Carolina 27711, (919) 541–5251, e-mail: porter.fred@epa.gov.

**SUPPLEMENTARY INFORMATION:**

*Comments.* We are publishing this direct final rule without prior proposal because we view this as a noncontroversial amendment and do not anticipate adverse comments. However, in the Proposed Rules section of this **Federal Register**, we are publishing a separate document that will serve as the proposal in the event that adverse comments are filed.

If we receive any significant adverse comments, we will publish a timely withdrawal in the **Federal Register** informing the public that this direct final rule will not take effect. We will address all public comments in a subsequent final rule based on the proposed rule. We will not institute a second comment period on this direct final rule. Any parties interested in commenting must do so at this time.

*Docket.* The docket is an organized and complete file of information compiled by EPA in development of this direct final rule. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the docket contains the record in the case of judicial review. The docket number for this rulemaking is A–90–45, Subcategory IX–D.

*World Wide Web (WWW).* In addition to being available in the docket, electronic copies of this action will be posted on the Technology Transfer Network's (TTN) policy and guidance information page http://www.epa.gov/ttn/caaa. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

*Regulated Entities.* The regulated categories and entities that potentially will be affected by this amendment include the following:

| Category | NAICS Codes | SIC Codes | Regulated entities |
|---|---|---|---|
| Industry, Federal government, and State/local/tribal governments. | 562213<br>92411 | 4953<br>9511 | Solid waste combustors or incinerators at waste-to-energy facilities that generate electricity or steam from the combustion of garbage (typically municipal waste); and solid waste combustors or incinerators at facilities that combust garbage (typically municipal waste) and do not recover energy from the waste. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that we are now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should carefully examine the applicability criteria in §§ 60.50b and 60.32b of the rules. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*Judicial Review.* Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of the action taken by this direct final rule is available only on the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by September 10, 2001. Under section 307(b)(2) of the CAA, the requirements that are subject to today's action may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Under section 307(d)(7) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment or

public hearing may be raised during judicial review.

## I. Background

On December 19, 1995, we promulgated standards of performance (60 FR 65382) and emissions guidelines (60 FR 65387) for large municipal waste combustors. These standards and guidelines establish maximum achievable control technology (MACT) emission limits for nine pollutants for all design types of municipal waste combustors. The emission control technology upon which these MACT emission limits are based varies somewhat, depending on the specific emission limit. For carbon monoxide (CO), the emission control technology upon which the MACT emission limits are based is good combustion. As outlined in the proposed and final standards and guidelines, good combustion consists of several elements: trained operators, waste feed control, combustion air control, combustion air preheat, and the use of auxiliary fuel burners.

The magnitude of CO emissions from a combustor are determined primarily by the combustion conditions which exist within the combustor. While good combustion minimizes CO emissions, it cannot achieve the same level of emission reductions for each type of combustor design since combustion conditions inherently vary from one type of combustor design to another. As a result, the MACT CO emission limits in the standards and guidelines vary by type of combustor design.

The MACT CO emission limits for mass burn rotary waterwall combustors, for example, are different (i.e., less stringent) than those for mass burn waterwall combustors. A mass burn rotary waterwall combustor is essentially an inclined rotating waterwall cylinder. Waste enters at the elevated end of the cylinder, ignites, and then slowly moves down the cylinder as it rotates. As the municipal waste burns, the rotation of the cylinder tends to carry the waste partially up the wall in the direction of rotation, until it tumbles and falls over on itself. When this happens, a large amount of fresh, unburned surface area is suddenly exposed to combustion, and this leads to substantial fluctuations in CO emission levels.

Most mass burn waterwall municipal waste combustors do not use an inclined rotating cylinder, but use an inclined reciprocating grate to burn the municipal waste. Viewed from the side, this inclined grate looks like a long set of stair steps. In most cases, every other grate step can move back and forth or reciprocate. The waste enters on the top step, ignites, and then is slowly pushed down the grate, from one step to another, by the reciprocating steps. While the action of moving from step to step serves to expose some fresh, unburned surface area to combustion, the transition is smoother and less abrupt than that in a rotary combustor. As a result, the fluctuations in CO emission levels are less extreme and, as mentioned above, the MACT emission limits in the standards and guidelines for CO are more stringent for mass burn waterwall combustors than for mass burn rotary waterwall combustors.

Recently, we have learned that there is one other type of mass burn waterwall municipal waste combustor design, which is referred to as a tumbling-tile grate combustor. Only one large municipal waste combustor of this type of design exists in the United States (i.e., Savannah Energy Systems located in Savannah, Georgia) and, until the owner/operator of this combustor brought this to our attention, we were not aware of it. This type of combustor design uses a grate to burn municipal waste but, because of the unique design of the grate, the combustion conditions within the combustor are similar to those within a mass burn rotary waterwall combustor.

When viewed from the side, the grate within this combustor looks like a long set of stair steps. However, every third step, which is referred to as a "tumbling-tile," is hinged at one end with the other end attached to a vertical ram beneath the step. As waste moves down the grate, the ram rises, rotating the step around the hinged end. This action causes the waste to tumble and fall over on itself exposing a large amount of fresh, unburned surface area to combustion.

The overall effect creates combustion conditions similar to those which exist within a rotating combustor. As the waste burns, periodically a large amount of fresh, unburned surface area is suddenly and abruptly exposed to combustion, and this leads to substantial fluctuations in CO emission levels. Good combustion reduces CO emission levels from a tumbling-tile grate waterwall combustor to the level achieved at rotary waterwall combustors, but cannot reduce CO emissions to the level achieved at mass burn waterwall combustors. Thus, the MACT emission limits for CO for mass burn tumbling-tile grate waterwall combustors and mass burn rotary waterwall combustors should be the same.

This direct final rule amendment, therefore, expands the definition of mass burn rotary waterwall municipal waste combustor to include mass burn tumbling-tile grate waterwall municipal waste combustor. This action ensures that the same MACT CO emission limit is established for both types of municipal waste combustor designs since they exhibit similar combustion conditions.

All terms used but not defined in the guidelines (Subpart Cb—Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994) have the meaning given them in the standards (Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996). As a result, this action has the effect of amending both the standards and the guidelines by amending the definition of mass burn rotary waterwall municipal waste combustor in the standards.

## II. Administrative Requirements

### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this direct final rule does not qualify as a "significant regulatory action" under the terms of Executive Order 12866 and, therefore, is not subject to review by OMB.

*B. Executive Order 13132: Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This direct final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of section 6 of the Executive Order do not apply to this direct final rule.

*C. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This direct final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this direct final rule.

*D. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This direct final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. Also, this direct final rule is not "economically significant."

*E. Unfunded Mandates Reform Act of 1995*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objective of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this direct final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA.

The EPA has determined that this direct final rule contains no regulatory requirements that might significantly or uniquely affect small governments.

*F. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.*

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's direct final rule on small entities, small entity is defined as: (1) A small business in the regulated industry that has a gross annual revenue less than $6 million; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a

population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's direct final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. This direct final rule will not impose any requirements on small entities because it does not impose any additional regulatory requirements.

*G. Paperwork Reduction Act*

The Office of Management and Budget had previously approved the information collection requirements contained in the standards and guidelines for large municipal waste combustors under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, at the time the rules were promulgated on December 19, 1995.

The amendment contained in this direct final rule results in no changes to the information collection requirements of the standards or guidelines and will have no impact on the information collection estimate of project cost and hour burden made and approved by OMB during the development of the standards and guidelines. Therefore, the information collection requests have not been revised.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 40 CFR chapter 15.

*H. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, § 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards.

This direct final rule amendment does not involve technical standards. The EPA's compliance with the NTTAA has been addressed in the preamble of the standards of performance (60 FR 65382) and emissions guidelines (60 FR 65387) promulgated on December 19, 1995.

*I. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this direct final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of this direct final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This direct final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Part 60**

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: July 3, 2001.

**Christine Todd Whitman,**

*Administrator.*

For the reasons stated in the preamble, title 40, chapter I, part 60 of the Code of Federal Regulations is amended to read as follows:

**PART 60—[AMENDED]**

1. The authority citation for part 60 continues to read as:

**Authority:** 42 U.S.C. 7401 *et seq.*

**Subpart Eb—[Amended]**

2. Section 60.51b is amended by revising the definition of *Mass burn rotary waterwall municipal waste combustor* and adding the definition of *Tumbling-tile* as follows:

**§ 60.51b Definitions.**

* * * * *

*Mass burn rotary waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace or on a tumbling-tile grate.

* * * * *

*Tumbling-tile* means a grate tile hinged at one end and attached to a ram at the other end. When the ram extends, the grate tile rotates around the hinged end.

* * * * *

[FR Doc. 01–17330 Filed 7–11–01; 8:45 am]

BILLING CODE 6560–50–U

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 81

**[Docket#: AK–01–002; FRL–7010–6]**

### Finding of Attainment for Carbon Monoxide (CO); Anchorage CO Nonattainment Area, AK

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is finding that the Anchorage CO nonattainment area in Alaska has attained the National Ambient Air Quality Standards (NAAQS) for CO by the deadline required by the Clean Air Act (CAA), December 31, 2000.

**EFFECTIVE DATE:** August 13, 2001.

**FOR FURTHER INFORMATION CONTACT:** Connie Robinson, Office of Air Quality Mail Code OAQ–107, EPA Region 10, 1200 Sixth Avenue, Seattle Washington, 98101, (206) 553–1086.

**SUPPLEMENTARY INFORMATION:** Throughout this document wherever "we", "us", or "our" is used we mean EPA.

**I. Background**

EPA has the responsibility for determining whether a nonattainment area has attained the CO NAAQS by the applicable attainment date. In this case the EPA was required to make determinations concerning whether serious CO nonattainment areas attained the NAAQS by their December 31, 2000, attainment date. Pursuant to the CAA, the EPA is required to make attainment determinations for these areas by June 30, 2001, no later than six months following the attainment date for the areas. This proposal was based on all available, quality-assured data collected from the CO monitoring sites, which has been entered into the Aerometric Information Retrieval System (AIRS). This data was reviewed to determine the area's air quality status in accordance with EPA guidance at 40 CFR part 50.8, and in accordance with EPA policy and guidance as stated in a memorandum from William G. Laxton, Director Technical Support Division, entitled "Ozone and Carbon Monoxide Design Value Calculations," dated June 18, 1990.




Federal Register

Friday,
November 16, 2001

Part III

# Environmental Protection Agency

40 CFR Part 60
Standards of Performance for Large Municipal Waste Combustors; Final Rule and Proposed Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–7100–8]**

**RIN 2060–AJ52**

## Standards of Performance for Large Municipal Waste Combustors for Which Construction Is Commenced After September 20, 1994 or for Which Modification or Reconstruction Is Commenced After June 19, 1996 and Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule; amendment.

**SUMMARY:** We are amending the standards of performance for large municipal waste combustors (MWC) by extending the time during which such units will be excused from compliance with the emission limits for carbon monoxide due to certain types of malfunctions. Since the compliance and performance testing provisions in the emissions guidelines for large MWC reference the compliance and performance testing provisions in the standards of performance, this amendment to the standards has the effect of amending both the standards and the guidelines.

**DATES:** This direct final rule will be effective on January 15, 2002 without further notice, unless significant adverse comments are received by December 17, 2001.

If significant material adverse comments are received by December 17, 2001, this direct final rule will be withdrawn and the comments addressed in a subsequent final rule based on the proposed rule. If no significant material adverse comments are received, no further action will be taken on the proposal and this direct final rule will become effective on January 15, 2002.

**ADDRESSES:** By U.S. Postal Service, send comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–90–45, U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–90–45, U.S. EPA, 401 M Street, SW, Washington, DC 20460. The EPA requests that a separate copy of each public comment be sent to the contact person listed below.

**FOR FURTHER INFORMATION CONTACT:** Mr. Fred Porter, Combustion Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, North Carolina 27711, (919) 541–5251, e-mail: *porter.fred@epa.gov*.

**SUPPLEMENTARY INFORMATION:**

*Comments.* We are publishing this direct final rule without prior proposal because we view this as a noncontroversial amendment and do not anticipate adverse comments. However, in the Proposed Rules section of this **Federal Register**, we are publishing a separate document that will serve as the proposal in the event that adverse comments are filed.

If we receive any significant adverse comments, we will publish a timely withdrawal in the **Federal Register** informing the public that this direct final rule will not take effect. We will address all public comments in a subsequent final rule based on the proposed rule. We will not institute a second comment period on this direct final rule. Any parties interested in commenting must do so at this time.

*Docket.* The docket is an organized and complete file of information compiled by EPA in developing this direct final rule. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the docket contains the record in the case of judicial review. The docket number for this rulemaking is A–90–45.

*World Wide Web (WWW).* In addition to being available in the docket, electronic copies of this action will be posted on the Technology Transfer Network's (TTN) policy and guidance information page: *http://www.epa.gov/ttn/caaa*. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

*Regulated Entities.* The regulated categories and entities that potentially will be affected by this amendment include the following:

| Category | NAICS codes | SIC codes | Regulated entities |
|---|---|---|---|
| Industry, Federal government, and State/local/tribal governments. | 562213<br>92411 | 4953<br>9511 | Solid waste combustors or incinerators at waste-to-energy facilities that generate electricity or steam from the combusion of garbage (typically municipal waste); and solid waste combustors or incinerators at facilities that combust garbage (typically municipal waste) and do not recover energy from the waste. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that we are now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should carefully examine the applicability criteria in §§ 60.50b and 60.32b of 40 CFR part 60, subparts Cb and Eb. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*Judicial Review.* Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of the action taken by this direct final rule is available only on the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by January 15, 2002. Under section 307(b)(2) of the CAA, the requirements that are subject to this action may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Under section 307(d)(7) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment or public hearing may be raised during judicial review.

### I. Background

On December 19, 1995, we promulgated final new source performance standards (60 FR 65382)

and emission guidelines (60 FR 65387) for large MWC. The standards and guidelines contain a provision requiring large MWC to comply with the emission limits in the standards at all times, except during periods of startup, shutdown, and malfunction. Periods of startup, shutdown, and malfunction are limited to 3 hours per occurrence. If it takes longer than 3 hours for startup or shutdown, or if a malfunction continues for longer than 3 hours, a large MWC is required to comply with the emission limits in the standards during those periods of time which exceed 3 hours.

It often takes longer than 3 hours for a large MWC to shutdown. Frequently, it can require 4 to 8 hours and, if complications arise, it can take as long as 10 to 15 hours. Except as noted below, that does not present a problem with respect to compliance with the emission limits since continued operation of the emission control systems permits the MWC to maintain compliance.

Recently, it has been brought to our attention that there are two general types of malfunctions which may occur, during which it is not possible to comply with the emission limit for carbon monoxide (CO). The first is loss of boiler water level control, and the second is loss of combustion air control.

*Loss of Boiler Water Level Control*

Large MWC boiler tube metal temperatures must be kept below 800° F or so to prevent damage or burn-out. If water levels in the tubes should fall, tube metal temperatures will increase well beyond that point. Consequently, a malfunction resulting from a loss of boiler water level control, as a result of failure of a boiler tube for example, requires shutdown of a large MWC to avoid serious damage to the remaining boiler tubes.

During any shutdown of a large MWC, it is difficult to maintain the proper balance between combustion air and waste to ensure complete combustion. As a result, CO emissions tend to increase.

Normally, the tendency for CO emissions to increase is overcome through the use of auxiliary fuel burners. The burners ensure complete combustion of CO to carbon dioxide ($CO_2$). Thus, even though the shutdown of a large MWC may take longer than 3 hours and there is a tendency for CO emissions to increase, the use of the auxiliary fuel burners overcomes any problem with respect to compliance with the CO emission limits.

During a malfunction and shutdown of a large MWC resulting from a loss of boiler water level control, however, full use of auxiliary fuel burners is contrary to the immediate objective. The immediate objective is to lower combustion temperatures to protect the boiler tubes from exposure to high temperatures. In fact, the National Fire Protection Association fire code for boilers does not allow auxiliary fuel burners to be fired when boiler water levels drop too low for that very reason.

Although the immediate objective is to lower combustion temperatures, combustion temperatures must be lowered in a controlled and deliberate manner to prevent damage to the boiler from heat stresses. Without the full use of auxiliary fuel burners, however, it is not possible for a large MWC to comply with the CO emission limits. Consequently, relief from the CO emission limits is appropriate during a malfunction resulting from a loss of boiler water level control.

*Loss of Combustion Air Control*

As with the loss of boiler water level control, the loss of combustion air control also necessitates shutdown of a large MWC. In addition, as with loss of boiler water level control, this type of malfunction also precludes full use of auxiliary fuel burners during shutdown.

Loss of combustion air control, as a result of loss of a combustion air fan, an induced draft fan, or failure of the grate system, can be very serious in a large MWC. Lack of sufficient air for complete combustion or improper distribution of combustion air (which leads to a lack of sufficient air for combustion within an area of the MWC) can present a significant risk of explosion. As a result, a malfunction resulting from a loss of combustion air control necessitates shutdown of a large MWC.

With a lack of sufficient air for complete combustion, CO emissions increase. As indicated above, during a normal shutdown, the tendency for CO emissions to increase can be overcome through the use of auxiliary fuel burners. However, full use of auxiliary fuel burners can exacerbate the fundamental problem, which is not enough air for complete combustion. In that situation, adding additional fuel through the use of auxiliary fuel burners can make the problem worse and increase, not decrease, the risk of explosion.

As with loss of boiler water level control, the National Fire Protection Association fire code does not allow use of auxiliary fuel burners in such situations. Indeed, in light of the potential increase in the risk of explosion, interlocks are often in place which prevent the use of auxiliary fuel burners if control of combustion air is lost.

Without full use of auxiliary fuel burners, it is not possible to comply with the CO emission limits as a large MWC is shutdown. Consequently, relief from the CO emission limits is appropriate during a malfunction resulting from a loss of combustion air control.

This amendment, therefore, extends the period of time from 3 hours to 15 hours during which a large MWC is exempt from compliance with the CO emission limits in the standards for the two types of malfunctions. As with all periods of malfunction, the extension in the period of time for the two types of malfunctions does not relieve the owner or operator from the requirement in § 60.11(d) of the General Provisions in 40 CFR part 60 which requires:

> At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the maximum extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

As a result, owners and operators of large MWC which may experience the two types of malfunctions must continue to take steps during the malfunctions to minimize emissions, consistent with the proper and safe operation of a large MWC.

In addition, the extension in the period of time during which a large MWC is exempt from compliance with the CO emission limits for the two types of malfunctions does not alter the definition of a malfunction included in § 60.2 of the General Provisions in 40 CFR part 60. A malfunction is defined as:

> * * * any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

As a result, owners and operators of large MWC must continue to develop and implement operation and maintenance programs to ensure that any failure, such as a loss of boiler water level control or a loss of combustion air control, which leads to emissions in excess of the emission limits in the standards is solely the result of a sudden and unavoidable occurrence and, thus, qualifies as a malfunction.

The compliance and performance testing provisions included in the guidelines (Subpart Cb—Emission Guidelines and Compliance Times for Large Municipal Waste Combustors

That are Constructed On or Before September 20, 1994) reference the corresponding compliance and performance testing provisions included in the standards (Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for Which Construction Is Commenced After September 20, 1994 or for Which Modification or Reconstruction Is Commenced After June 19, 1996). As a result, this action amending the standards has the effect of amending both the standards and the guidelines.

## II. Administrative Requirements

### *A. Executive Order 12866, Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

We have determined that this direct final rule does not qualify as a "significant regulatory action" under the terms of Executive Order 12866 and, therefore, is not subject to review by OMB.

### *B. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use*

This direct final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

### *C. Executive Order 13132, Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires us to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under section 6 of Executive Order 13132, we may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or we consult with State and local officials early in the process of developing the proposed regulation. Also, we may not issue a regulation that has federalism implications and that preempts State law, unless we consult with State and local officials early in the process of developing the proposed regulation.

This direct final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of section 6 of the Executive Order do not apply to this direct final rule.

### *D. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires us to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This direct final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this direct final rule.

### *E. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks*

Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives we considered.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This direct final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. Also, this direct final rule is not "economically significant."

### *F. Unfunded Mandates Reform Act of 1995*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local and tribal governments and the private sector. Under section 202 of the UMRA, generally we must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires that we identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objective of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other

than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of our regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that this direct final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Thus, this direct final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

We have also determined that this direct final rule contains no regulatory requirements that might significantly or uniquely affect small governments.

*G. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.*

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this direct final rule on small entities, small entity is defined as (1) A small business in the regulated industry that has a gross annual revenue less than $6 million; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this direct final rule on small entities, we have concluded that this action will not have a significant economic impact on a substantial number of small entities. This direct final rule will not impose any requirements on small entities because it does not impose any additional regulatory requirements.

*H. Paperwork Reduction Act*

The Office of Management and Budget approved the information collection requirements contained in the standards and guidelines for large municipal waste combustors under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, at the time the rules were promulgated on December 19, 1995.

The amendment contained in this direct final rule results in no changes to the information collection requirements of the standards or guidelines and will have no impact on the information collection estimate of project cost and hour burden made and approved by OMB during the development of the standards and guidelines. Therefore, the information collection requests have not been revised.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for our regulations are listed in 40 CFR part 9 and 40 CFR chapter 15.

*I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, § 12(d) (15 U.S.C. 272 note) directs us to use voluntary consensus standards in our regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs us to provide Congress, through OMB, explanations when we decide not to use available and applicable voluntary consensus standards.

This direct final rule amendment does not involve technical standards. Compliance with the NTTAA was addressed in the preamble of the standards of performance (60 FR 65382) and emissions guidelines (60 FR 65387) promulgated on December 19, 1995.

*J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. We will submit a report containing this direct final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of this direct final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This direct final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Part 60**

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: November 1, 2001.

**Christine Todd Whitman,**

*Administrator.*

For the reasons stated in the preamble, title 40, chapter I, part 60 of the Code of Federal Regulations is amended to read as follows:

**PART 60—[AMENDED]**

1. The authority citation for part 60 continues to read as:

**Authority:** 42 U.S.C. 7401 *et seq.*

**Subpart Eb—[Amended]**

2. Section 60.58b is amended by revising paragraph (a)(1) introductory text and adding paragraph (a)(1)(iii) to read as follows:

**§ 60.58b Compliance and performance testing.**

(a) * * *

(1) Except as provided by § 60.56b, the standards under this subpart apply at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in paragraph (a)(1)(iii) of this section.

* * * * *

(iii) For the purpose of compliance with the carbon monoxide emission limits in § 60.53b(a), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the

duration of the malfunction period is limited to 15 hours per occurrence.

* * * * *

[FR Doc. 01–28084 Filed 11–15–01; 8:45 am]

BILLING CODE 6560–50–P




Federal Register

Wednesday,
December 6, 2000

Part II

# Environmental Protection Agency

40 CFR Part 60
New Source Performance Standards for New Small Municipal Waste Combustion Units; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–6899–6]**

**RIN 2060–AI51**

## New Source Performance Standards for New Small Municipal Waste Combustion Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This action reestablishes new source performance standards (NSPS) for new small municipal waste combustion (MWC) units. The NSPS for small MWC units contain stringent emission limits for organics (dioxins/furans), metals (cadmium, lead, mercury, and particulate matter), and acid gases (hydrogen chloride, sulfur dioxide, and nitrogen oxides). Some of those pollutants can cause toxic effects such as eye, nose, throat, and skin irritation, and blood cell, heart, liver, and kidney damage. The NSPS for small MWC units were originally promulgated in December 1995, but were vacated by the U.S. Court of Appeals for the District of Columbia Circuit in March 1997. In response to the 1997 vacature, on August 30, 1999, EPA proposed to reestablish NSPS for small MWC units. The NSPS contained in this final rule are equivalent to the 1995 NSPS for small MWC units.

**DATES:** *Effective date.* June 6, 2001.

The incorporation by reference of certain publications listed in this rule are approved by the Director of the Office of Federal Register as of June 6, 2001.

*Applicability Date.* The NSPS apply to small MWC units that commenced construction after August 30, 1999 and small MWC units that commenced reconstruction or modification after June 6, 2001.

**ADDRESSES:** Docket No. A–98–18 and associated Docket Nos. A–90–45 and A–89–08 contain supporting information for the NSPS. The dockets are available for public inspection and copying between 8:00 a.m. and 5:30 p.m., Monday through Friday, at EPA's Air and Radiation Docket and Information Center (Mail Code-6102), 401 M Street SW, Washington, DC 20460, or by calling (202) 260–7548. The dockets are located at the above address in Room M–1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Mr. Rick Copland at (919) 541–5265, Combustion Group, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, e-mail: copland.rick@epa.gov.

**SUPPLEMENTARY INFORMATION:** Public Comments. The NSPS and companion emission guidelines for small MWC units were proposed on August 30, 1999 (64 FR 47276), and 48 comment letters were received on the proposals. Verbal comments were also received at the October 5, 1999 public hearing. The comment letters and a transcript of the public hearing are available in Docket No. A–98–18. A summary of and responses to the public comments are contained in "Small Municipal Waste Combustors: Background Information Document for New Source Performance Standards and Emission Guidelines-Public Comments and Responses (EPA–453/R–00-001)." In response to the public comments, EPA adjusted the final NSPS where appropriate. A copy of the background information document is located in Docket No. A–98–18.

### World Wide Web

Electronic versions of this action, the regulatory text, and other background information, including the response to comments document, are available at the Technology Transfer Network Web site (TTN Web) that EPA has established for the NSPS for small MWC units: "http://www.epa.gov/ttn/uatw/129/mwc/rimwc2.html." For assistance in downloading files, call the EPA's TTN Web Help Line at (919) 541–5384.

### Regulated Entities

The NSPS will affect the following categories of sources:

| Category | NAICS codes | SIC codes | Examples of regulated entities |
|---|---|---|---|
| Industry, Federal government, and State/local/tribal governments. | 562213<br>92411 | 4953<br>9511 | Solid waste combustors or incinerators at waste-to-energy facilities that generate electricity or steam from the combustion of garbage (typically municipal waste); and solid waste combustors or incinerators at facilities that combust garbage (typically municipal waste) and do not recover energy from the waste. |

The above list is not intended to be exhaustive, but rather provides a guide regarding the entities EPA expects to regulate with the NSPS for small MWC units. Not all facilities classified under the NAICS and SIC codes are affected. Other types of entities not listed could also be affected. To determine whether your facility is regulated by the NSPS, carefully examine the applicability criteria in §§ 60.1010 through 60.1045 of the NSPS.

### Judicial Review

Today's action of adopting a final rule for small MWC units constitutes final administrative action on the proposed NSPS for small MWC units. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 5, 2001. Under section 307(d)(7)(B) of the CAA, only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by EPA to enforce the requirements.

### Organization of This Document

The following outline is provided to aid in locating information in this preamble.

I. Background Information
II. Summary of the NSPS
A. Sources Regulated by the NSPS
B. Pollutants Regulated by the NSPS
C. Format of the Emission Limits
D. Summary of the NSPS
III. Changes to the NSPS
IV. Impacts of the NSPS
A. Air Impacts
B. Cost and Economic Impacts
V. Companion Rule for Existing Small MWC Units
VI. Administrative Requirements
A. Executive Order 12866: Regulatory Planning and Review
B. Executive Order 13132: Federalism

C. Executive Order 13084: Consultation and Coordination with Indian Tribal Governments
D. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
E. Unfunded Mandates Reform Act
F. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*
G. Paperwork Reduction Act
H. National Technology Transfer and Advancement Act
I. Congressional Review Act

Abbreviations and Acronyms Used in This Document

ASME American Society of Mechanical Engineers
ASTM American Society for Testing and Materials
CFR Code of Federal Regulations
EIA Economic Impact Analysis
EPA U.S. Environmental Protection Agency
FR Federal Register
ICR Information Collection Request kg/year Kilograms per year
Mg/year Megagrams per year
MACT Maximum achievable control technology
MSW Municipal solid waste
MWC Municipal waste combustion
NAICS North American Industrial Classification System
NSPS New source performance standards
NTTAA National Technology Transfer and Advancement Act
OAQPS Office of Air Quality Planning and Standards
OMB Office of Management and Budget
OP Office of Policy
Pub. L. Public Law
RFA Regulatory Flexibility Act
SBREFA Small Business Regulatory Enforcement Fairness Act
SD/FF/CI Spray dryer/fabric filter/carbon injection
SIC Standard Industrial Classification
TTN Technology Transfer Network
UMRA Unfunded Mandates Reform Act
U.S. United States
U.S.C. United States Code

## I. Background Information

On December 19, 1995, EPA promulgated NSPS for large and small MWC units under 40 CFR part 60, subpart Eb. The NSPS covered new MWC units located at plants with an aggregate plant combustion capacity greater than 35 megagrams per day of municipal solid waste (MSW) (approximately 39 tons per day of MSW). The 1995 NSPS divided the MWC unit population into MWC units located at large MWC plants and MWC units located at small MWC plants. Plant size was based on the total aggregate capacity of all individual MWC units at the MWC plant.

Litigation followed the promulgation of the 1995 NSPS. In 1997, the U.S. Court of Appeals for the District of Columbia Circuit ruled that EPA must develop regulations for small MWC units (units with an individual MWC capacity of 250 tons per day or less) separately from regulations for large MWC units (units with an individual MWC unit capacity greater than 250 tons per day), indicating that the 1995 NSPS were not consistent with section 129 of the CAA. The court directed EPA to revise the 1995 NSPS so that they applied only to large MWC units, and the court vacated the 1995 NSPS as they applied to small MWC units. In response to the court ruling, EPA amended the 1995 NSPS on August 25, 1997 so that they applied only to new large MWC units. Then, on August 30, 1999, EPA proposed NSPS for small MWC units with an individual unit capacity of 35 to 250 tons per day.

Today's final rule reestablishes NSPS for new small MWC units with capacities of 35 to 250 tons per day of MSW under 40 CFR part 60, subpart AAAA.

## II. Summary of the NSPS

The following summarizes the final NSPS for small MWC units, including identification of the subcategories used in the final NSPS. Overall, there are no significant changes in the final NSPS compared to the proposed NSPS. The following two subcategories are used in the NSPS for small MWC units: Class I units are small MWC units located at plants with aggregate plant capacities greater than 250 tons of MSW per day while Class II units are small MWC units located at plants with aggregate plant capacities less than or equal to 250 tons of MSW per day.

### *A. Sources Regulated by the NSPS*

Today's NSPS apply to each new MWC unit that has a design combustion capacity of 35 to 250 tons per day of MSW and commenced construction after August 30, 1999 or commenced modification or reconstruction after June 6, 2001. The NSPS for new, modified, or reconstructed MWC units will become effective on June 6, 2001. Small MWC units that commenced construction on or before August 30, 1999 are not covered under the NSPS (subpart AAAA). Those units will be subject to the emission guidelines for existing small MWC units (subpart BBBB) which are published separately in today's **Federal Register**.

### *B. Pollutants Regulated by the NSPS*

Section 129 of the CAA requires EPA to establish numerical emission limits for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, sulfur dioxide, hydrogen chloride, nitrogen oxides, and carbon monoxide. Section 129 specifies that EPA may also:

> * * * promulgate numerical emission limitations or provide for the monitoring of post-combustion concentrations of surrogate substances, parameters, or periods of residence times in excess of stated temperatures with respect to pollutants other than those listed [above] * * *

Therefore, in addition to the emission limits, EPA is establishing requirements for MWC unit operating load, flue gas temperature at the particulate matter control device inlet, and carbon feed rate as part of the good combustion practice requirements. The EPA is also establishing requirements for the control of fugitive ash emissions. All of those requirements were contained in the 1995 NSPS.

### *C. Format of the Emission Limits*

The format of the emission limits is identical to the format of the 1995 NSPS: emission limits based on pollutant concentration. Alternative percentage reduction requirements are provided for mercury, sulfur dioxide, and hydrogen chloride. Opacity and fugitive ash requirements are the same as the 1995 NSPS. In addition to controlling stack emissions, the NSPS incorporate good combustion practice requirements (*i.e.*, operator training, operator certification, and MWC unit operating requirements).

### *D. Summary of the NSPS*

A concise summary of the NSPS can be found in Tables 1 and 2 of subpart AAAA.

## III. Changes to the NSPS

There are no substantial changes in the final NSPS relative to the NSPS proposed in 1999. A summary of and responses to the public comments are contained in the background information document described earlier under "Public Comments." The final emission limits are consistent with the 1995 NSPS. Based on an evaluation of the best controlled units within the small MWC unit population, EPA has concluded that the performance of a spray dryer/fabric filter air pollution control system continues to represent the maximum achievable control technology (MACT) floor for new small MWC units.

## IV. Impacts of the NSPS

The following describes the impacts (*i.e.*, air, water, solid waste, energy, cost, and economic impacts) of the NSPS for new small MWC units. The impact analysis conducted to evaluate the 1995 NSPS still applies because the air pollution control requirements in the

final NSPS are the same as the 1995 NSPS. The 1995 analysis is available at 59 FR 48198. The discussion in this preamble focuses only on the air, cost, and economic impacts of the NSPS.

In the preamble for the 1995 NSPS, EPA determined that the water, solid waste, and energy impacts associated with the NSPS were not significant. Because the NSPS are the same as the 1995 NSPS, the water, solid waste, and energy impacts are the same and continue to be judged as not significant.

For further information on the impacts of the NSPS, refer to "Economic Impact Analysis (EIA): Small Municipal Waste Combustion Units—Emission Guidelines and New Source Performance Standards," March 2000, EPA–452/R–00–001.

*A. Air Impacts*

As discussed in the EIA, approximately 90 small MWC units located at 41 plants are operating in the United States. Based on trends in small MWC unit construction over the past several years, EPA projects that about one new small MWC plant will be constructed each year. It is estimated that most new plants with small MWC units will have, on average, two small MWC units onsite. The 5th year impacts are, therefore, based on the construction of 10 new small MWC units over a 5-year period.

Table 1 of this preamble presents the national air emissions reductions for new small MWC units that would result from full implementation of the NSPS in the 5th year compared to a baseline scenario without the NSPS.

TABLE 1.—NATIONAL AIR EMISSION IMPACTS OF THE NSPS FOR SMALL MWC UNITS

| Pollutant | Air emissions reduction | Percent reduction [a] |
|---|---|---|
| Dioxins/Furans [b] | 0.2 kg/year | 99 |
| Cadmium | 169 kg/year | 99 |
| Lead | 15 Mg/year | 99 |
| Mercury | 386 kg/year | 97 |
| Particulate Matter | 238 Mg/year | 98 |
| Sulfur Dioxide | 189 Mg/year | 83 |
| Hydrogen Chloride | 137 Mg/year | 90 |
| Nitrogen Oxides | [c] | [c] |

[a] Percent national emissions reduction relative to national baseline emissions that would occur in the absence of the NSPS.
[b] Total mass of tetra-through octachlorinated dibenzo-p-dioxins through dibenzofurans.
[c] For Class I units, nitrogen oxides emissions reductions are expected to be approximately 40 percent. Class II units are not expected to have any reductions in nitrogen oxides emissions. Since the future distribution of new Class I and II units is unknown, mass reductions of nitrogen oxides are not presented.

*B. Cost and Economic Impacts*

To estimate the costs of the NSPS for new small MWC units, EPA has taken into account the various air pollution control equipment that would need to be installed at new small MWC plants to achieve the NSPS. The cost estimates presented here are the projected costs that a new MWC plant with two small MWC units would incur to comply with the NSPS. Those costs are based on new small MWC units installing spray dryer/fabric filter/carbon injection as the air pollution control device system. The EPA projects that the total annual cost (including annualized capital and operating costs) for a single MWC plant would be approximately $1.6 million, and the total annualized cost of the NSPS would be $8.1 million in the 5th year after promulgation. For more details on the cost and economic analysis, refer to the EIA.

## V. Companion Rule for Existing Small MWC Units

A companion rule to establish emission guidelines for existing small MWC units is being published separately in today's **Federal Register**. The emission guidelines for existing small MWC units are contained in 40 CFR part 60, subpart BBBB.

## VI. Administrative Requirements

*A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant," and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to lead to a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, EPA has determined that this final rule is not a "significant regulatory action" and, therefore, is not subject to OMB review. The EPA submitted the 1995 rulemaking package (which included requirements for new and existing large MWC units and requirements for new and existing small MWC units) to OMB for review (60 FR 65405, December 19, 1995) and OMB approved the rulemaking package for adoption. The NSPS promulgated today only apply to new small MWC units and are projected to have an impact of approximately $8.1 million annually in the 5th year after promulgation of the NSPS.

*B. Executive Order 13132: Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law, unless EPA consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because the NSPS do not preclude States from adopting and implementing their own performance standards. Thus, the requirements of section 6 of the Executive Order do not apply to this final rule. Although section 6 of Executive Order 13132 does not apply to this final rule, EPA did consult with State and local officials in developing this final rule. A list of those consultations is provided in the preamble to the 1995 NSPS (60 FR 65405–65412, December 19, 1995).

*C. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments*

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to OMB, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

Today's final rule does not significantly or uniquely affect the communities of Indian tribal governments. The EPA is not aware of any small MWC units located in Indian territory. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this final rule.

*D. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This final rule is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866. Further, it is based on technology performance and not on health and safety risks.

*E. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, or tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, or tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the NSPS do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, or tribal governments, in the aggregate, or the private sector in any 1 year. The EIA shows that the total annual costs of the NSPS is about $8.1 million per year in the 5th year after the rule is promulgated. Thus, today's NSPS are not subject to the requirements of sections 202 and 205 of the UMRA. Although the NSPS are not subject to UMRA, EPA prepared a cost-benefit analysis under section 202 of the UMRA for the 1995 NSPS. For a discussion of how EPA complied with the UMRA for the 1995 NSPS, including its extensive consultations with State and local governments, see the preamble to the 1995 NSPS. Because today's final NSPS are equivalent to the 1995 NSPS, no additional consultations were necessary.

*F. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.*

The RFA generally requires Federal agencies to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's final rule on small entities, a

small entity is defined as: (1) A small business in the regulated industry that has a gross annual revenue less than $6 million; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has determined that this action will not have a significant economic impact on a substantial number of small entities. The EPA has determined that few small entities use MWC units for municipal solid waste disposal. The vast majority of small entities use municipal solid waste landfills for disposal. A small entity considering a new small MWC unit would have the opportunity to switch to an alternative municipal solid waste disposal method, such as municipal solid waste landfills, if the costs to comply with the NSPS were considered prohibitive. Thus, the number of small entities that will be significantly impacted by this final rule is not substantial.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA has tried to reduce the impact of this final rule on small entities by establishing different requirements for Class I and Class II MWC units and establishing provisions for less frequent testing for Class II MWC units. In addition, EPA involved representatives of small entities in the development of the NSPS.

*G. Paperwork Reduction Act*

The OMB has approved the information collection requirements in the NSPS under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and has assigned OMB control number 2060–0423; and ICR #1900.01.

The information will be used by EPA to identify new, modified, or reconstructed units subject to the NSPS and to ensure that those units undergo a preconstruction impact analysis. The information will also be used by EPA to ensure that the small MWC unit requirements are implemented properly and are complied with on a continuous basis. Records and reports enable EPA to identify small MWC units that might not be in compliance with the NSPS. Based on reported information, EPA will decide which small MWC units should be inspected and what records or processes should be inspected. Records that owners and operators of small MWC units maintain indicate to EPA whether personnel are operating and maintaining control equipment properly.

The recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to EPA policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

For the information collection request (ICR), a 3-year impact period was analyzed. The NSPS are projected to affect six MWC units located at three MWC plants during the first 3 years immediately following promulgation. The estimated average annual burden to owners of new small MWC units for the first 3 years after promulgation of the NSPS would be approximately 8,600 person-hours annually at a total cost of $219,000 for capital start-up costs and O&M costs per year to meet the monitoring, recordkeeping, and reporting requirements. The estimated average annualized burden to the government implementing the final NSPS would be approximately 500 hours during the first 3 years at a cost of $21,000 (including travel expenses).

Burden means total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. That includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15. The EPA is amending the table in 40 CFR part 9 of currently approved ICR control numbers issued by OMB for various regulations to list the information collection requirements contained in this final rule.

*H. National Technology Transfer and Advancement Act*

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law No. 104–113, Section 12(d) (15 U.S.C. 272 note), directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, explanations when EPA decides not to use available and applicable voluntary consensus standards.

Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards applicable to the NSPS for small MWC units that could be used in process and emissions monitoring. The search for emissions monitoring procedures identified 29 voluntary consensus standards that initially appeared to have possible use in lieu of EPA standard reference methods. After reviewing the available standards, EPA determined that 21 of the candidate consensus standards identified for measuring emissions or surrogates subject to emission standards in the final rule would not be practical due to lack of equivalency, documentation, validation data and other important technical and policy considerations. The seven remaining candidate consensus standards are under development or currently under EPA review. The EPA plans to follow, review and consider adopting those standards after their development and further review by EPA is completed.

One consensus standard, American Society for Testing and Materials (ASTM) D6216–98, is practical for EPA use in EPA Performance Specification 1 (PS–1) (40 CFR part 60, appendix B). The ASTM D6216 can best be used in place of the design specification verification procedures currently in sections 5 and 6 of PS–1. On September 23, 1998, EPA proposed incorporating by reference ASTM D6216–98 under a separate rulemaking (63 FR 50824). Comments from the proposal have been addressed, and EPA expects to complete that action in the near future. For the above reasons, EPA does not in this final rulemaking adopt ASTM D6216–98 in lieu of PS–1 requirements as it would

be impractical for EPA to act independently from another rulemaking activity already undergoing promulgation, and because ASTM D6216 does not address all of the requirements specified in PS–1.

The EPA also conducted searches to identify voluntary consensus standards for process monitoring and process operation. Candidate voluntary consensus standards for process monitoring and process operation were identified for MWC unit load level (steam output); designing, constructing, installing, calibrating, and using nozzles and orifices; and MWC plant operator certification requirements.

One consensus standard by the American Society of Mechanical Engineers (ASME) was identified for potential use in this final rule for the measurement of MWC unit load level (steam output). The EPA believes the standard is practical to use in this final rule as the method to measure MWC unit load. The EPA has already incorporated by reference "ASME Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991)" in 40 CFR 60.17(h)(2).

A second consensus standard by ASME was identified for potential use in this final rule for designing, constructing, installing, calibrating, and using nozzles and orifices. The EPA believes the standard is practical to use for the design, construction, installation, calibration, and use of nozzles and orifices. The EPA has already incorporated by reference "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)" in 40 CFR 60.17(h)(3).

A third consensus standard by ASME (QRO–1–1994) was identified for potential use in this final rule for MWC plant operator certification requirements instead of developing new operator certification procedures. The EPA believes the standard is practical to use in the emission guidelines that require a chief facility operator and shift supervisor to successfully complete the operator certification procedures developed by ASME. The EPA has already incorporated by reference (QRO–1–1994) in 40 CFR 60.17(h)(1).

Tables 3, 4 and 5 of subpart AAAA list the EPA testing methods and performance standards included in this final rule. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 60.8 of subpart A of part 60, the standard also allows any State or source to apply to EPA for permission to use alternative methods in place of any of the EPA testing methods or performance standards listed in the rule.

*I. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This final rule will be effective June 6, 2001.

**List of Subjects in 40 CFR Part 60**

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Municipal waste combustion, Reporting and recordkeeping requirements.

Dated: November 3, 2000.

**Carol M. Browner,**

*Administrator.*

For the reasons stated in the preamble, title 40, chapter I, part 60, of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7601.

### Subpart A—[Amended]

2. Section 60.17 is amended by revising paragraphs (h)(1), (h)(2) and (h)(3) to read as follows:

**§ 60.17 Incorporations by reference.**

* * * * *

(h) * * *

(1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§ 60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).

(2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).

(3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)4), and 60.1810(a)(4).

* * * * *

3. Part 60 is amended by adding a new subpart AAAA to read as follows:

### Subpart AAAA—Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001

Sec.

**Introduction**

60.1000 What does this subpart do?
60.1005 When does this subpart become effective?

**Applicability**

60.1010 Does this subpart apply to my municipal waste combustion unit?
60.1015 What is a new municipal waste combustion unit?
60.1020 Does this subpart allow any exemptions?
60.1025 Do subpart E new source performance standards also apply to my municipal waste combustion unit?
60.1030 Can the Administrator delegate authority to enforce these Federal new source performance standards to a State agency?
60.1035 How are these new source performance standards structured?
60.1040 Do all five components of these new source performance standards apply at the same time?
60.1045 Are there different subcategories of small municipal waste combustion units within this subpart?

**Preconstruction Requirements: Materials Separation Plan**

60.1050 Who must submit a materials separation plan?
60.1055 What is a materials separation plan?
60.1060 What steps must I complete for my materials separation plan?
60.1065 What must I include in my draft materials separation plan?
60.1070 How do I make my draft materials separation plan available to the public?
60.1075 When must I accept comments on the materials separation plan?
60.1080 Where and when must I hold a public meeting on my draft materials separation plan?
60.1085 What must I do with any public comments I receive during the public comment period on my draft materials separation plan?
60.1090 What must I do with my revised materials separation plan?

60.1095 What must I include in the public meeting on my revised materials separation plan?
60.1100 What must I do with any public comments I receive on my revised materials separation plan?
60.1105 How do I submit my final materials separation plan?

**Preconstruction Requirements: Siting Analysis**

60.1110 Who must submit a siting analysis?
60.1115 What is a siting analysis?
60.1120 What steps must I complete for my siting analysis?
60.1125 What must I include in my siting analysis?
60.1130 How do I make my siting analysis available to the public?
60.1135 When must I accept comments on the siting analysis and revised materials separation plan?
60.1140 Where and when must I hold a public meeting on the siting analysis?
60.1145 What must I do with any public comments I receive during the public comment period on my siting analysis?
60.1150 How do I submit my siting analysis?

**Good Combustion Practices: Operator Training**

60.1155 What types of training must I do?
60.1160 Who must complete the operator training course? By when?
60.1165 Who must complete the plant-specific training course?
60.1170 What plant-specific training must I provide?
60.1175 What information must I include in the plant-specific operating manual?
60.1180 Where must I keep the plant-specific operating manual?

**Good Combustion Practices: Operator Certification**

60.1185 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?
60.1190 After the required date for operator certification, who may operate the municipal waste combustion unit?
60.1195 What if all the certified operators must be temporarily offsite?

**Good Combustion Practices: Operating Requirements**

60.1200 What are the operating practice requirements for my municipal waste combustion unit?
60.1205 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

**Emission Limits**

60.1210 What pollutants are regulated by this subpart?
60.1215 What emission limits must I meet? By when?
60.1220 What happens to the emission limits during periods of startup, shutdown, and malfunction?

**Continuous Emission Monitoring**

60.1225 What types of continuous emission monitoring must I perform?
60.1230 What continuous emission monitoring systems must I install for gaseous pollutants?
60.1235 How are the data from the continuous emission monitoring systems used?
60.1240 How do I make sure my continuous emission monitoring systems are operating correctly?
60.1245 Am I exempt from any appendix B or appendix F requirements to evaluate continuous emission monitoring systems?
60.1250 What is my schedule for evaluating continuous emission monitoring systems?
60.1255 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?
60.1260 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?
60.1265 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?
60.1270 What is required for my continuous opacity monitoring system and how are the data used?
60.1275 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?
60.1280 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

**Stack Testing**

60.1285 What types of stack tests must I conduct?
60.1290 How are the stack test data used?
60.1295 What schedule must I follow for the stack testing?
60.1300 What test methods must I use to stack test?
60.1305 May I conduct stack testing less often?
60.1310 May I deviate from the 13-month testing schedule if unforeseen circumstances arise?

**Other Monitoring Requirements**

60.1315 Must I meet other requirements for continuous monitoring?
60.1320 How do I monitor the load of my municipal waste combustion unit?
60.1325 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?
60.1330 How do I monitor the injection rate of activated carbon?
60.1335 What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?

**Recordkeeping**

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## Introduction

### § 60.1000 What does this subpart do?

This subpart establishes new source performance standards for new small municipal waste combustion units.

### § 60.1005 When does this subpart become effective?

This subpart takes effect June 6, 2001. Some of the requirements in this subpart apply to municipal waste combustion unit planning and must be completed before construction is commenced on the municipal waste combustion unit. In particular, the preconstruction requirements in §§ 60.1050 through 60.1150 must be completed prior to commencing construction. Other requirements (such as the emission limits) apply when the municipal waste combustion unit begins operation.

## Applicability

### § 60.1010 Does this subpart apply to my municipal waste combustion unit?

Yes, if your municipal waste combustion unit meets two criteria:

(a) Your municipal waste combustion unit is a new municipal waste combustion unit.

(b) Your municipal waste combustion unit has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.

### § 60.1015 What is a new municipal waste combustion unit?

(a) A new municipal waste combustion unit is a municipal waste combustion unit that meets either of two criteria:

(1) Commenced construction after August 30, 1999.

(2) Commenced reconstruction or modification after June 6, 2001.

(b) This subpart does not apply to your municipal waste combustion unit if you make physical or operational changes to an existing municipal waste combustion unit primarily to comply with the emission guidelines in subpart BBBB of this part. Such changes do not qualify as reconstruction or modification under this subpart.

### § 60.1020 Does this subpart allow any exemptions?

(a) *Small municipal waste combustion units that combust less than 11 tons per day.* You are exempt from this subpart if you meet four requirements:

(1) Your municipal waste combustion unit is subject to a federally enforceable permit limiting the amount of municipal solid waste combusted to less than 11 tons per day.

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with a copy of the federally enforceable permit.

(4) You keep daily records of the amount of municipal solid waste combusted.

(b) *Small power production facilities.* You are exempt from this subpart if you meet four requirements:

(1) Your unit qualifies as a small power production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) Your unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit qualifies for the exemption.

(4) You provide the Administrator with documentation that the unit qualifies for the exemption.

(c) *Cogeneration facilities.* You are exempt from this subpart if you meet four requirements:

(1) Your unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) Your unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit qualifies for the exemption.

(4) You provide the Administrator with documentation that the unit qualifies for the exemption.

(d) *Municipal waste combustion units that combust only tires.* You are exempt from this subpart if you meet three requirements:

(1) Your municipal waste combustion unit combusts a single-item waste stream of tires and no other municipal waste (the unit can co-fire coal, fuel oil, natural gas, or other nonmunicipal solid waste).

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with documentation that the unit qualifies for the exemption.

(e) *Hazardous waste combustion units.* You are exempt from this subpart if you get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(f) *Materials recovery units.* You are exempt from this subpart if your unit combusts waste mainly to recover metals. Primary and secondary smelters qualify for the exemption.

(g) *Co-fired combustors.* You are exempt from this subpart if you meet four requirements:

(1) Your unit has a federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with a copy of the federally enforceable permit.

(4) You record the weights, each quarter, of municipal solid waste and of all other fuels combusted.

(h) *Plastics/rubber recycling units.* You are exempt from this subpart if you meet four requirements:

(1) Your pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined under "Definitions" (§ 60.1465).

(2) You record the weights, each quarter, of plastics, rubber, and rubber tires processed.

(3) You record the weights, each quarter, of feed stocks produced and marketed from chemical plants and petroleum refineries.

(4) You keep the name and address of the purchaser of those feed stocks.

(i) *Units that combust fuels made from products of plastics/rubber recycling plants.* You are exempt from this subpart if you meet two requirements:

(1) Your unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units.

(2) Your unit does not combust any other municipal solid waste.

(j) *Cement kilns.* You are exempt from this subpart if your cement kiln combusts municipal solid waste.

(k) *Air curtain incinerators.* If your air curtain incinerator (see § 60.1465 for definition) combusts 100 percent yard waste, you must meet only the requirements under "Air Curtain Incinerators That Burn 100 Percent Yard Waste" (§§ 60.1435 through 60.1455).

### § 60.1025 Do subpart E new source performance standards also apply to my municipal waste combustion unit?

If this subpart AAAA applies to your municipal waste combustion unit, then subpart E of this part does not apply to your municipal waste combustion unit.

### § 60.1030 Can the Administrator delegate authority to enforce these Federal new source performance standards to a State agency?

Yes, the Administrator can delegate all authorities in all sections of this

subpart to the State for direct State enforcement.

**§ 60.1035 How are these new source performance standards structured?**

These new source performance standards contain five major components:

(a) Preconstruction requirements.
(1) Materials separation plan.
(2) Siting analysis.
(b) Good combustion practices.
(1) Operator training.
(2) Operator certification.
(3) Operating requirements.
(c) Emission limits.
(d) Monitoring and stack testing.
(e) Recordkeeping and reporting.

**§ 60.1040 Do all five components of these new source performance standards apply at the same time?**

No, you must meet the preconstruction requirements before you commence construction of the municipal waste combustion unit. After the municipal waste combustion unit begins operation, you must meet all of the good combustion practices, emission limits, monitoring, stack testing, and most recordkeeping and reporting requirements.

**§ 60.1045 Are there different subcategories of small municipal waste combustion units within this subpart?**

(a) Yes, this subpart subcategorizes small municipal waste combustion units into two groups based on the aggregate capacity of the municipal waste combustion plant as follows:

(1) *Class I Units.* Class I units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. (See the definition of "municipal waste combustion plant capacity" in § 60.1465 for specification of which units at a plant are included in the aggregate capacity calculation.)

(2) *Class II Units.* Class II units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. (See the definition of "municipal waste combustion plant capacity" in § 60.1465 for specification of which units at a plant are included in the aggregate capacity calculation.)

(b) The requirements for Class I and Class II units are identical except for two items:

(1) Class I units have a nitrogen oxides emission limit. Class II units do not have a nitrogen oxides emission limit (see Table 1 of this subpart). Additionally, Class I units have continuous emission monitoring, recordkeeping, and reporting requirements for nitrogen oxides.

(2) Class II units are eligible for the reduced testing option provided in § 60.1305.

**Preconstruction Requirements: Materials Separation Plan**

**§ 60.1050 Who must submit a materials separation plan?**

(a) You must prepare a materials separation plan for your municipal waste combustion unit if you commence construction of a new small municipal waste combustion unit after December 6, 2000.

(b) If you commence construction of your municipal waste combustion unit after August 30, 1999 but before December 6, 2000, you are not required to prepare the materials separation plan specified in this subpart.

(c) You must prepare a materials separation plan if you are required to submit an initial application for a construction permit, under 40 CFR part 51, subpart I, or part 52, as applicable, for the reconstruction or modification of your municipal waste combustion unit.

**§ 60.1055 What is a materials separation plan?**

The plan identifies a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling.

**§ 60.1060 What steps must I complete for my materials separation plan?**

(a) For your materials separation plan, you must complete nine steps:

(1) Prepare a draft materials separation plan.

(2) Make your draft plan available to the public.

(3) Hold a public meeting on your draft plan.

(4) Prepare responses to public comments received during the public comment period on your draft plan.

(5) Prepare a revised materials separation plan.

(6) Discuss the revised plan at the public meeting for review of the siting analysis.

(7) Prepare responses to public comments received on your revised plan.

(8) Prepare a final materials separation plan.

(9) Submit the final materials separation plan.

(b) You may use analyses conducted under the requirements of 40 CFR part 51, subpart I, or part 52, to comply with some of the materials separation requirements of this subpart.

**§ 60.1065 What must I include in my draft materials separation plan?**

(a) You must prepare and submit a draft materials separation plan for your municipal waste combustion unit and its service area.

(b) Your draft materials separation plan must identify a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling. A materials separation plan may include such elements as dropoff facilities, buy-back or deposit-return incentives, programs for curbside pickup, and centralized systems for mechanical separation.

(c) Your materials separation plan may include different goals or approaches for different subareas in the service area.

(d) Your materials separation plan may exclude materials separation activities for certain subareas or, if warranted, the entire service area.

**§ 60.1070 How do I make my draft materials separation plan available to the public?**

(a) Distribute your draft materials separation plan to the main public libraries in the area where you will construct the municipal waste combustion unit.

(b) Publish a notice of a public meeting in the main newspapers that serve two areas:

(1) The area where you will construct the municipal waste combustion unit.

(2) The areas where the waste that your municipal waste combustion unit combusts will be collected.

(c) Include six items in your notice of the public meeting:

(1) The date of the public meeting.
(2) The time of the public meeting.
(3) The location of the public meeting.
(4) The location of the public libraries where the public can find your materials separation plan. Include the normal business hours of each library.
(5) An agenda of the topics that will be discussed at the public meeting.
(6) The beginning and ending dates of the public comment period on your draft materials separation plan.

**§ 60.1075 When must I accept comments on the materials separation plan?**

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments anytime during the period that begins on the date the document is distributed to the main public libraries and ends 30 days after the date of the public meeting.

**§ 60.1080 Where and when must I hold a public meeting on my draft materials separation plan?**

(a) You must hold a public meeting and accept comments on your draft materials separation plan.

(b) You must hold the public meeting in the county where you will construct the municipal waste combustion unit.

(c) You must schedule the public meeting to occur at least 30 days after you make your draft materials separation plan available to the public.

(d) You may combine the public meeting with any other public meeting required as part of any other Federal, State, or local permit review. However, you may not combine it with the public meeting required for the siting analysis under "Preconstruction Requirements: Siting Analysis" (§ 60.1140).

(e) You are encouraged to address eight topics at the public meeting for your draft materials separation plan:

(1) Expected size of the service area for your municipal waste combustion unit.

(2) Amount of waste you will collect in the service area.

(3) Types and estimated amounts of materials proposed for separation.

(4) Methods proposed for materials separation.

(5) Amount of residual waste for disposal.

(6) Alternate disposal methods for handling the residual waste.

(7) Where your responses to public comments on the draft materials separation plan will be available for inspection.

(8) Where your revised materials separation plan will be available for inspection.

(f) You must prepare a transcript of the public meeting on your draft materials separation plan.

**§ 60.1085 What must I do with any public comments I receive during the public comment period on my draft materials separation plan?**

You must do three steps:

(a) Prepare written responses to any public comments you received during the public comment period. Summarize the responses to public comments in a document that is separate from your revised materials separation plan.

(b) Make the comment response document available to the public in the service area where you will construct your municipal waste combustion unit. You must distribute the document at least to the main public libraries used to announce the public meeting.

(c) Prepare a revised materials separation plan for the municipal waste combustion unit that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

**§ 60.1090 What must I do with my revised materials separation plan?**

You must do two tasks:

(a) As specified under "Reporting" (§ 60.1375), submit five items to the Administrator by the date you submit the application for a construction permit under 40 CFR part 51, subpart I, or part 52. (If you are not required to submit an application for a construction permit under 40 CFR part 51, subpart I, or part 52, submit five items to the Administrator by the date of your notice of construction under § 60.1380):

(1) Your draft materials separation plan.

(2) Your revised materials separation plan.

(3) Your notice of the public meeting for your draft materials separation plan.

(4) A transcript of the public meeting on your draft materials separation plan.

(5) The document that summarizes your responses to the public comments you received during the public comment period on your draft materials separation plan.

(b) Make your revised materials separation plan available to the public as part of the siting analysis procedures under "Preconstruction Requirements: Siting Analysis" (§ 60.1130).

**§ 60.1095 What must I include in the public meeting on my revised materials separation plan?**

As part of the public meeting for review of the siting analysis, as specified under "Preconstruction Requirements: Siting Analysis" (§ 60.1140), you must discuss two areas:

(a) Differences between your revised materials separation plan and your draft materials separation plan discussed at the first public meeting (§ 60.1080).

(b) Questions about your revised materials separation plan.

**§ 60.1100 What must I do with any public comments I receive on my revised materials separation plan?**

(a) Prepare written responses to any public comments and include them in the document that summarizes your responses to public comments on the siting analysis.

(b) Prepare a final materials separation plan that includes, as appropriate, changes made in response to any public comments you received on your revised materials separation plan.

**§ 60.1105 How do I submit my final materials separation plan?**

As specified under "Reporting" (§ 60.1380), submit your final materials separation plan to the Administrator as part of the notice of construction for the municipal waste combustion unit.

**Preconstruction Requirements: Siting Analysis**

**§ 60.1110 Who must submit a siting analysis?**

(a) You must prepare a siting analysis if you commence construction of a small municipal waste combustion unit after December 6, 2000.

(b) If you commence construction on your municipal waste combustion unit after August 30, 1999, but before December 6, 2000, you are not required to prepare the siting analysis specified in this subpart.

(c) You must prepare a siting analysis if you are required to submit an initial application for a construction permit, under 40 CFR part 51, subpart I, or part 52, as applicable, for the reconstruction or modification of your municipal waste combustion unit.

**§ 60.1115 What is a siting analysis?**

The siting analysis addresses how your municipal waste combustion unit affects ambient air quality, visibility, soils, vegetation, and other relevant factors. The analysis can be used to determine whether the benefits of your proposed facility significantly outweigh the environmental and social costs resulting from its location and construction. The analysis must also consider other major industrial facilities near the proposed site.

**§ 60.1120 What steps must I complete for my siting analysis?**

(a) For your siting analysis, you must complete five steps:

(1) Prepare an analysis.

(2) Make your analysis available to the public.

(3) Hold a public meeting on your analysis.

(4) Prepare responses to public comments received on your analysis.

(5) Submit your analysis.

(b) You may use analyses conducted under the requirements of 40 CFR part 51, subpart I, or part 52, to comply with some of the siting analysis requirements of this subpart.

**§ 60.1125 What must I include in my siting analysis?**

(a) Include an analysis of how your municipal waste combustion unit affects four areas:

(1) Ambient air quality.

(2) Visibility.

(3) Soils.

(4) Vegetation.

(b) Include an analysis of alternatives for controlling air pollution that

minimize potential risks to the public health and the environment.

**§ 60.1130 How do I make my siting analysis available to the public?**

(a) Distribute your siting analysis and revised materials separation plan to the main public libraries in the area where you will construct your municipal waste combustion unit.

(b) Publish a notice of a public meeting in the main newspapers that serve two areas:

(1) The area where you will construct your municipal waste combustion unit.

(2) The areas where the waste that your municipal waste combustion unit combusts will be collected.

(c) Include six items in your notice of the public meeting:

(1) The date of the public meeting.

(2) The time of the public meeting.

(3) The location of the public meeting.

(4) The location of the public libraries where the public can find your siting analysis and revised materials separation plan. Include the normal business hours of each library.

(5) An agenda of the topics that will be discussed at the public meeting.

(6) The beginning and ending dates of the public comment period on your siting analysis and revised materials separation plan.

**§ 60.1135 When must I accept comments on the siting analysis and revised materials separation plan?**

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments anytime during the period that begins on the date the document is distributed to the main public libraries and ends 30 days after the date of the public meeting.

**§ 60.1140 Where and when must I hold a public meeting on the siting analysis?**

(a) You must hold a public meeting to discuss and accept comments on your siting analysis and your revised materials separation plan.

(b) You must hold the public meeting in the county where you will construct your municipal waste combustion unit.

(c) You must schedule the public meeting to occur at least 30 days after you make your siting analysis and revised materials separation plan available to the public.

(d) You must prepare a transcript of the public meeting on your siting analysis.

**§ 60.1145 What must I do with any public comments I receive during the public comment period on my siting analysis?**

You must do three things:

(a) Prepare written responses to any public comments on your siting analysis and the revised materials separation plan you received during the public comment period. Summarize the responses to public comments in a document that is separate from your materials separation plan and siting analysis.

(b) Make the comment response document available to the public in the service area where you will construct your municipal waste combustion unit. You must distribute the document at least to the main public libraries used to announce the public meeting for the siting analysis.

(c) Prepare a revised siting analysis for the municipal waste combustion unit that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

**§ 60.1150 How do I submit my siting analysis?**

As specified under "Reporting" (§ 60.1380), submit four items as part of the notice of construction:

(a) Your siting analysis.

(b) Your notice of the public meeting on your siting analysis.

(c) A transcript of the public meeting on your siting analysis.

(d) The document that summarizes your responses to the public comments you received during the public comment period.

## Good Combustion Practices: Operator Training

**§ 60.1155 What types of training must I do?**

There are two types of required training:

(a) Training of operators of municipal waste combustion units using the U.S. Environmental Protection Agency (EPA) or a State-approved training course.

(b) Training of plant personnel using a plant-specific training course.

**§ 60.1160 Who must complete the operator training course? By when?**

(a) Three types of employees must complete the EPA or State-approved operator training course:

(1) Chief facility operators.

(2) Shift supervisors.

(3) Control room operators.

(b) Those employees must complete the operator training course by the later of three dates:

(1) Six months after your municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

**§ 60.1165 Who must complete the plant-specific training course?**

All employees with responsibilities that affect how a municipal waste combustion unit operates must complete the plant-specific training course. Include at least six types of employees:

(a) Chief facility operators.

(b) Shift supervisors.

(c) Control room operators.

(d) Ash handlers.

(e) Maintenance personnel.

(f) Crane or load handlers.

**§ 60.1170 What plant-specific training must I provide?**

For plant-specific training, you must do four things:

(a) For training at a particular plant, develop a specific operating manual for that plant by the later of two dates:

(1) Six months after your municipal waste combustion unit initial startup.

(2) December 6, 2001.

(b) Establish a program to review the plant-specific operating manual with people whose responsibilities affect the operation of your municipal waste combustion unit. Complete the initial review by the later of three dates:

(1) Six months after your municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

(c) Update your manual annually.

(d) Review your manual with staff annually.

**§ 60.1175 What information must I include in the plant-specific operating manual?**

You must include 11 items in the operating manual for your plant:

(a) A summary of all applicable requirements in this subpart.

(b) A description of the basic combustion principles that apply to municipal waste combustion units.

(c) Procedures for receiving, handling, and feeding municipal solid waste.

(d) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit.

(e) Procedures for maintaining a proper level of combustion air supply.

(f) Procedures for operating the municipal waste combustion unit in compliance with the requirements contained in this subpart.

(g) Procedures for responding to periodic upset or off-specification conditions.

(h) Procedures for minimizing carryover of particulate matter.

(i) Procedures for handling ash.

(j) Procedures for monitoring emissions from the municipal waste combustion unit.

(k) Procedures for recordkeeping and reporting.

**§ 60.1180 Where must I keep the plant-specific operating manual?**

You must keep your operating manual in an easily accessible location at your plant. It must be available for review or inspection by all employees who must review it and by the Administrator.

**Good Combustion Practices: Operator Certification**

**§ 60.1185 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?**

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO–1–1994) (incorporated by reference in § 60.17(h)(1)) or a current provisional operator certification from your State certification program.

(b) Each chief facility operator and shift supervisor must obtain a provisional certification by the later of three dates:

(1) Six months after the municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

(c) Each chief facility operator and shift supervisor must take one of three actions:

(1) Obtain a full certification from the American Society of Mechanical Engineers or a State certification program in your State.

(2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO–1–1994) (incorporated by reference in § 60.17(h)(1)).

(3) Schedule a full certification exam with your State certification program.

(d) The chief facility operator and shift supervisor must obtain the full certification or be scheduled to take the certification exam by the later of three dates:

(1) Six months after the municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

**§ 60.1190 After the required date for operator certification, who may operate the municipal waste combustion unit?**

After the required date for full or provisional certifications, you must not operate your municipal waste combustion unit unless one of four employees is on duty:

(a) A fully certified chief facility operator.

(b) A provisionally certified chief facility operator who is scheduled to take the full certification exam.

(c) A fully certified shift supervisor.

(d) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

**§ 60.1195 What if all the certified operators must be temporarily offsite?**

If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, you must meet one of three criteria:

(a) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator.

(b) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must record the period when the certified chief facility operator and certified shift supervisor are offsite and include that information in the annual report as specified under § 60.1410(l).

(c) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must take two actions:

(1) Notify the Administrator in writing. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite.

(2) Submit a status report and corrective action summary to the Administrator every 4 weeks following the initial notification. If the Administrator notifies you that your status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.

**Good Combustion Practices: Operating Requirements**

**§ 60.1200 What are the operating practice requirements for my municipal waste combustion unit?**

(a) You must not operate your municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour block average), as specified under "Definitions" (§ 60.1465).

(b) You must not operate your municipal waste combustion unit so that the temperature at the inlet of the particulate matter control device exceeds 17°C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average), as specified under "Definitions" (§ 60.1465).

(c) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must maintain an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test.

(d) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must evaluate total carbon usage for each calendar quarter. The total amount of carbon purchased and delivered to your municipal waste combustion plant must be at or above the required quarterly usage of carbon. At your option, you may choose to evaluate required quarterly carbon usage on a municipal waste combustion unit basis for each individual municipal waste combustion unit at your plant. Calculate the required quarterly usage of carbon using equation 4 or 5 in § 60.1460(f).

(e) Your municipal waste combustion unit is exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of five situations:

(1) During your annual tests for dioxins/furans.

(2) During your annual mercury tests (for carbon feed rate requirements only).

(3) During the 2 weeks preceding your annual tests for dioxins/furans.

(4) During the 2 weeks preceding your annual mercury tests (for carbon feed rate requirements only).

(5) Whenever the Administrator or delegated State authority permits you to do any of five activities:

(i) Evaluate system performance.

(ii) Test new technology or control technologies.

(iii) Perform diagnostic testing.

(iv) Perform other activities to improve the performance of your municipal waste combustion unit.

(v) Perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit.

#### § 60.1205 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

(a) The operating requirements of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

### Emission Limits

#### § 60.1210 What pollutants are regulated by this subpart?

Eleven pollutants, in four groupings, are regulated:

(a) *Organics.* Dioxins/furans.

(b) *Metals.*

(1) Cadmium.

(2) Lead.

(3) Mercury.

(4) Opacity.

(5) Particulate matter.

(c) *Acid gases.*

(1) Hydrogen chloride.

(2) Nitrogen oxides.

(3) Sulfur dioxide.

(d) *Other.*

(1) Carbon monoxide.

(2) Fugitive ash.

#### § 60.1215 What emission limits must I meet? By when?

You must meet the emission limits specified in Tables 1 and 2 of this subpart. You must meet the limits 60 days after your municipal waste combustion unit reaches the maximum load level but no later than 180 days after its initial startup.

#### § 60.1220 What happens to the emission limits during periods of startup, shutdown, and malfunction?

(a) The emission limits of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

(c) A maximum of 3 hours of test data can be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.

(d) During startup, shutdown, or malfunction periods longer than 3 hours, emissions data cannot be discarded from compliance calculations and all provisions under § 60.11(d) apply.

### Continuous Emission Monitoring

#### § 60.1225 What types of continuous emission monitoring must I perform?

To continuously monitor emissions, you must perform four tasks:

(a) Install continuous emission monitoring systems for certain gaseous pollutants.

(b) Make sure your continuous emission monitoring systems are operating correctly.

(c) Make sure you obtain the minimum amount of monitoring data.

(d) Install a continuous opacity monitoring system.

#### § 60.1230 What continuous emission monitoring systems must I install for gaseous pollutants?

(a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. If you operate a Class I municipal waste combustion unit, you must also install, calibrate, maintain, and operate a continuous emission monitoring system for nitrogen oxides. Install the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in § 60.13.

(c) You must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor sulfur dioxide and carbon monoxide. Additionally, if you operate a Class I municipal waste combustion unit, you must also monitor the oxygen (or carbon dioxide) concentration at the location where you monitor nitrogen oxides.

(d) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you choose to monitor carbon dioxide, then an oxygen monitor is not required, and you must follow the requirements in § 60.1255.

(e) If you choose to demonstrate compliance by monitoring the percent reduction of sulfur dioxide, you must also install continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) at the inlet of the air pollution control device.

(f) If you prefer to use an alternative sulfur dioxide monitoring method, such as parametric monitoring, or cannot monitor emissions at the inlet of the air pollution control device to determine percent reduction, you can apply to the Administrator for approval to use an alternative monitoring method under § 60.13(i).

#### § 60.1235 How are the data from the continuous emission monitoring systems used?

You must use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the emission limits specified in Tables 1 and 2 of this subpart. To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see § 60.1290.

#### § 60.1240 How do I make sure my continuous emission monitoring systems are operating correctly?

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your oxygen (or carbon dioxide) continuous emission monitoring system, your sulfur dioxide, nitrogen oxides, or carbon monoxide continuous emission monitoring systems, as appropriate, and the appropriate test methods specified in Table 3 of this subpart. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in appendix B of this part. Table 4 of this subpart shows the performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of appendix F of this part for each continuous emission monitoring system. The procedures include daily calibration

drift and quarterly accuracy determinations.

**§ 60.1245 Am I exempt from any appendix B or appendix F requirements to evaluate continuous emission monitoring systems?**

Yes, the accuracy tests for your sulfur dioxide continuous emission monitoring system require you to also evaluate your oxygen (or carbon dioxide) continuous emission monitoring system. Therefore, your oxygen (or carbon dioxide) continuous emission monitoring system is exempt from two requirements:

(a) Section 2.3 of Performance Specification 3 in appendix B of this part (relative accuracy requirement).

(b) Section 5.1.1 of appendix F of this part (relative accuracy test audit).

**§ 60.1250 What is my schedule for evaluating continuous emission monitoring systems?**

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 13 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in appendix F of this part.

**§ 60.1255 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?**

You must establish the relationship between oxygen and carbon dioxide during the initial evaluation of your continuous emission monitoring systems. You may reestablish the relationship during annual evaluations. To establish the relationship use three procedures:

(a) Use EPA Reference Method 3A or 3B in appendix A of this part to determine oxygen concentration at the location of your carbon dioxide monitor.

(b) Conduct at least three test runs for oxygen. Make sure each test run represents a 1-hour average and that sampling continues for at least 30 minutes in each hour.

(c) Use the fuel-factor equation in EPA Reference Method 3B in appendix A of this part to determine the relationship between oxygen and carbon dioxide.

**§ 60.1260 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?**

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for sulfur dioxide, nitrogen oxides, and carbon monoxide are in parts per million by dry volume at 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. Section 60.13(e)(2) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you are in violation of the data collection requirement regardless of the emission level monitored, and you must notify the Administrator according to § 60.1410(e).

(e) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions in accordance with § 60.1265.

**§ 60.1265 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?**

(a) Use the equation in § 60.1460(a) to calculate emissions at 7 percent oxygen.

(b) Use EPA Reference Method 19 in appendix A of this part, section 4.3, to calculate the daily geometric average concentrations of sulfur dioxide emissions. If you are monitoring the percent reduction of sulfur dioxide, use EPA Reference Method 19 in appendix A of this part, section 5.4, to determine the daily geometric average percent reduction of potential sulfur dioxide emissions.

(c) If you operate a Class I municipal waste combustion unit, use EPA Reference Method 19 in appendix A of this part, section 4.1, to calculate the daily arithmetic average for concentrations of nitrogen oxides.

(d) Use EPA Reference Method 19 in appendix A of this part, section 4.1, to calculate the 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon monoxide.

**§ 60.1270 What is required for my continuous opacity monitoring system and how are the data used?**

(a) Install, calibrate, maintain, and operate a continuous opacity monitoring system.

(b) Install, evaluate, and operate each continuous opacity monitoring system according to § 60.13.

(c) Complete an initial evaluation of your continuous opacity monitoring system according to Performance Specification 1 in appendix B of this part. Complete the evaluation within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no more than 180 days after its initial startup.

(d) Complete each annual evaluation of your continuous opacity monitoring system no more than 13 months after the previous evaluation.

(e) Use tests conducted according to EPA Reference Method 9 in appendix A of this part, as specified in § 60.1300, to determine compliance with the opacity limit in Table 1 of this subpart. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the opacity limit.

**§ 60.1275 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?**

Use the required span values and applicable performance specifications in Table 4 of this subpart.

**§ 60.1280 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?**

Refer to Table 4 of this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

## Stack Testing

**§ 60.1285 What types of stack tests must I conduct?**

Conduct initial and annual stack tests to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

**§ 60.1290 How are the stack test data used?**

You must use results of stack tests for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the emission limits in Table 1 of this

subpart. To demonstrate compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide, see § 60.1235.

**§ 60.1295 What schedule must I follow for the stack testing?**

(a) Conduct initial stack tests for the pollutants listed in § 60.1285 within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(b) Conduct annual stack tests for the same pollutants after the initial stack test. Conduct each annual stack test no later than 13 months after the previous stack test.

**§ 60.1300 What test methods must I use to stack test?**

(a) Follow Table 5 of this subpart to establish the sampling location and to determine pollutant concentrations, number of traverse points, individual test methods, and other specific testing requirements for the different pollutants.

(b) Make sure that stack tests for all the pollutants consist of at least three test runs, as specified in § 60.8. Use the average of the pollutant emission concentrations from the three test runs to determine compliance with the emission limits in Table 1 of this subpart.

(c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant measurements to determine diluent gas levels, as specified in § 60.1230.

(d) Use the equations in § 60.1460(a) to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride emissions, and the reduction efficiency for mercury emissions. See the individual test methods in Table 5 of this subpart for other required equations.

(e) You can apply to the Administrator for approval under § 60.8(b) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the Administrator has determined are adequate for demonstrating compliance, waive the requirement for a performance test because you have demonstrated by other means that you are in compliance, or use a shorter sampling time or smaller sampling volume.

**§ 60.1305 May I conduct stack testing less often?**

(a) You may test less often if you own or operate a Class II municipal waste combustion unit and if all stack tests for a given pollutant over 3 consecutive years show you comply with the emission limit. In that case, you are not required to conduct a stack test for that pollutant for the next 2 years. However, you must conduct another stack test within 36 months of the anniversary date of the third consecutive stack test that shows you comply with the emission limit. Thereafter, you must perform stack tests every 3rd year but no later than 36 months following the previous stack tests. If a stack test shows noncompliance with an emission limit, you must conduct annual stack tests for that pollutant until all stack tests over 3 consecutive years show compliance with the emission limit for that pollutant. The provision applies to all pollutants subject to stack testing requirements: dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

(b) You can test less often for dioxins/furans emissions if you own or operate a municipal waste combustion plant that meets two conditions. First, you have multiple municipal waste combustion units onsite that are subject to this subpart. Second, all those municipal waste combustion units have demonstrated levels of dioxins/furans emissions less than or equal to 7 nanograms per dry standard cubic meter (total mass) for 2 consecutive years. In that case, you may choose to conduct annual stack tests on only one municipal waste combustion unit per year at your plant. The provision only applies to stack testing for dioxins/furans emissions.

(1) Conduct the stack test no more than 13 months following a stack test on any municipal waste combustion unit subject to this subpart at your plant. Each year, test a different municipal waste combustion unit subject to this subpart and test all municipal waste combustion units subject to this subpart in a sequence that you determine. Once you determine a testing sequence, it must not be changed without approval by the Administrator.

(2) If each annual stack test shows levels of dioxins/furans emissions less than or equal to 7 nanograms per dry standard cubic meter (total mass), you may continue stack tests on only one municipal waste combustion unit subject to this subpart per year.

(3) If any annual stack test indicates levels of dioxins/furans emissions greater than 7 nanograms per dry standard cubic meter (total mass), conduct subsequent annual stack tests on all municipal waste combustion units subject to this subpart at your plant. You may return to testing one municipal waste combustion unit subject to this subpart per year if you can demonstrate dioxins/furans emission levels less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all municipal waste combustion units at your plant subject to this subpart for 2 consecutive years.

**§ 60.1310 May I deviate from the 13-month testing schedule if unforeseen circumstances arise?**

You may not deviate from the 13-month testing schedules specified in §§ 60.1295(b) and 60.1305(b)(1) unless you apply to the Administrator for an alternative schedule, and the Administrator approves your request for alternate scheduling prior to the date on which you would otherwise have been required to conduct the next stack test.

### Other Monitoring Requirements

**§ 60.1315 Must I meet other requirements for continuous monitoring?**

You must also monitor three operating parameters:

(a) Load level of each municipal waste combustion unit.

(b) Temperature of flue gases at the inlet of your particulate matter air pollution control device.

(c) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

**§ 60.1320 How do I monitor the load of my municipal waste combustion unit?**

(a) If your municipal waste combustion unit generates steam, you must install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter and meet five requirements:

(1) Continuously measure and record the measurements of steam (or feed water) in kilograms (or pounds) per hour.

(2) Calculate your steam (or feed water) flow in 4-hour block averages.

(3) Calculate the steam (or feed water) flow rate using the method in "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991)," section 4 (incorporated by reference in § 60.17(h)(2)).

(4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters," 6th Edition (1971), chapter 4 (incorporated by reference in § 60.17(h)(3)).

(5) Before each dioxins/furans stack test, or at least once a year, calibrate all

signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions.

(b) If your municipal waste combustion unit does not generate steam, or, if your municipal waste combustion units have shared steam systems and steam load cannot be estimated per unit, you must determine, to the satisfaction of the Administrator, one or more operating parameters that can be used to continuously estimate load level (for example, the feed rate of municipal solid waste or refuse-derived fuel). You must continuously monitor the selected parameters.

**§ 60.1325 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?**

You must install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device.

**§ 60.1330 How do I monitor the injection rate of activated carbon?**

If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must meet three requirements:

(a) Select a carbon injection system operating parameter that can be used to calculate carbon feed rate (for example, screw feeder speed).

(b) During each dioxins/furans and mercury stack test, determine the average carbon feed rate in kilograms (or pounds) per hour. Also, determine the average operating parameter level that correlates to the carbon feed rate. Establish a relationship between the operating parameter and the carbon feed rate in order to calculate the carbon feed rate based on the operating parameter level.

(c) Continuously monitor the selected operating parameter during all periods when the municipal waste combustion unit is operating and combusting waste, and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. When calculating the 8-hour block average, do two things:

(1) Exclude hours when the municipal waste combustion unit is not operating.

(2) Include hours when the municipal waste combustion unit is operating but the carbon feed system is not working correctly.

**§ 60.1335 What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?**

(a) Where continuous parameter monitoring systems are used, obtain 1-hour arithmetic averages for three parameters:

(1) Load level of the municipal waste combustion unit.

(2) Temperature of the flue gases at the inlet of your particulate matter control device.

(3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this section, you are in violation of the data collection requirement and you must notify the Administrator according to § 60.1410(e).

**Recordkeeping**

**§ 60.1340 What records must I keep?**

You must keep five types of records:

(a) Materials separation plan and siting analysis.

(b) Operator training and certification.

(c) Stack tests.

(d) Continuously monitored pollutants and parameters.

(e) Carbon feed rate.

**§ 60.1345 Where must I keep my records and for how long?**

(a) Keep all records onsite in paper copy or electronic format unless the Administrator approves another format.

(b) Keep all records on each municipal waste combustion unit for at least 5 years.

(c) Make all records available for submittal to the Administrator, or for onsite review by an inspector.

**§ 60.1350 What records must I keep for the materials separation plan and siting analysis?**

You must keep records of five items:

(a) The date of each record.

(b) The final materials separation plan.

(c) The siting analysis.

(d) A record of the location and date of the public meetings.

(e) Your responses to the public comments received during the public comment periods.

**§ 60.1355 What records must I keep for operator training and certification?**

You must keep records of six items:

(a) *Records of provisional certifications.* Include three items:

(1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program.

(2) Dates of the initial provisional certifications.

(3) Documentation showing current provisional certifications.

(b) *Records of full certifications.* Include three items:

(1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program.

(2) Dates of initial and renewal full certifications.

(3) Documentation showing current full certifications.

(c) *Records showing completion of the operator training course.* Include three items:

(1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA or State municipal waste combustion operator training course.

(2) Dates of completion of the operator training course.

(3) Documentation showing completion of the operator training course.

(d) *Records of reviews for plant-specific operating manuals.* Include three items:

(1) Names of persons who have reviewed the operating manual.

(2) Date of the initial review.

(3) Dates of subsequent annual reviews.

(e) *Records of when a certified operator is temporarily offsite.* Include two main items:

(1) If the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, record the dates that the certified chief facility operator and certified shift supervisor were offsite.

(2) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks and no other certified operator is onsite, keep records of four items:

(i) Your notice that all certified persons are offsite.

(ii) The conditions that cause those people to be offsite.

(iii) The corrective actions you are taking to ensure a certified chief facility operator or certified shift supervisor is onsite.

(iv) Copies of the written reports submitted every 4 weeks that summarize the actions taken to ensure that a certified chief facility operator or certified shift supervisor will be onsite.

(f) *Records of calendar dates.* Include the calendar date on each record.

**§ 60.1360 What records must I keep for stack tests?**

For stack tests required under § 60.1285, you must keep records of four items:

(a) The results of the stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in Table 1 of this subpart:

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

(b) Test reports including supporting calculations that document the results of all stack tests.

(c) The maximum demonstrated load of your municipal waste combustion units and maximum temperature at the inlet of your particulate matter control device during all stack tests for dioxins/furans emissions.

(d) The calendar date of each record.

**§ 60.1365 What records must I keep for continuously monitored pollutants or parameters?**

You must keep records of eight items:

(a) *Records of monitoring data.* Document six parameters measured using continuous monitoring systems:

(1) All 6-minute average levels of opacity.

(2) All 1-hour average concentrations of sulfur dioxide emissions.

(3) For Class I municipal waste combustion units only, all 1-hour average concentrations of nitrogen oxides emissions.

(4) All 1-hour average concentrations of carbon monoxide emissions.

(5) All 1-hour average load levels of your municipal waste combustion unit.

(6) All 1-hour average flue gas temperatures at the inlet of the particulate matter control device.

(b) *Records of average concentrations and percent reductions.* Document five parameters:

(1) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions or average percent reductions of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, all 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.

(3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions.

(4) All 4-hour block arithmetic average load levels of your municipal waste combustion unit.

(5) All 4-hour block arithmetic average flue gas temperatures at the inlet of the particulate matter control device.

(c) *Records of exceedances.* Document three items:

(1) Calendar dates whenever any of the five pollutant or parameter levels recorded in paragraph (b) of this section or the opacity level recorded in paragraph (a)(1) of this section did not meet the emission limits or operating levels specified in this subpart.

(2) Reasons you exceeded the applicable emission limits or operating levels.

(3) Corrective actions you took, or are taking, to meet the emission limits or operating levels.

(d) *Records of minimum data.* Document three items:

(1) Calendar dates for which you did not collect the minimum amount of data required under §§ 60.1260 and 60.1335. Record the dates for five types of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustion unit.

(v) Temperatures of the flue gases at the inlet of the particulate matter control device.

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took, or are taking, to obtain the required amount of data.

(e) *Records of exclusions.* Document each time you have excluded data from your calculation of averages for any of the following five pollutants or parameters and the reasons the data were excluded:

(1) Sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load levels of your municipal waste combustion unit.

(5) Temperatures of the flue gases at the inlet of the particulate matter control device.

(f) *Records of drift and accuracy.* Document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of this part. Keep the records for the sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide continuous emissions monitoring systems.

(g) *Records of the relationship between oxygen and carbon dioxide.* If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in § 60.1255.

(h) *Records of calendar dates.* Include the calendar date on each record.

**§ 60.1370 What records must I keep for municipal waste combustion units that use activated carbon?**

For municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions, you must keep records of five items:

(a) *Records of average carbon feed rate.* Document five items:

(1) Average carbon feed rate in kilograms (or pounds) per hour during all stack tests for dioxins/furans and mercury emissions. Include supporting calculations in the records.

(2) For the operating parameter chosen to monitor carbon feed rate, average operating level during all stack tests for dioxins/furans and mercury emissions. Include supporting data that document the relationship between the operating parameter and the carbon feed rate.

(3) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour calculated from the monitored operating parameter.

(4) Total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include supporting documentation.

(5) Required quarterly usage of carbon for the municipal waste combustion plant, calculated using equation 4 or 5 in § 60.1460(f). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit

at your plant. Include supporting calculations.

(b) *Records of low carbon feed rates.* Document three items:

(1) The calendar dates when the average carbon feed rate over an 8-hour block was less than the average carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions (whichever has a higher feed rate).

(2) Reasons for the low carbon feed rates.

(3) Corrective actions you took or are taking to meet the 8-hour average carbon feed rate requirement.

(c) *Records of minimum carbon feed rate data.* Document three items:

(1) Calendar dates for which you did not collect the minimum amount of carbon feed rate data required under § 60.1335.

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took or are taking to get the required amount of data.

(d) *Records of exclusions.* Document each time you have excluded data from your calculation of average carbon feed rates and the reasons the data were excluded.

(e) *Records of calendar dates.* Include the calendar date on each record.

**Reporting**

**§ 60.1375 What reports must I submit before I submit my notice of construction?**

(a) If you are required to submit an application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, you must submit five items by the date you submit your application.

(1) Your draft materials separation plan, as specified in § 60.1065.

(2) Your revised materials separation plan, as specified in § 60.1085(c).

(3) Your notice of the initial public meeting for your draft materials separation plan, as specified in § 60.1070(b).

(4) A transcript of the initial public meeting, as specified in § 60.1080(f).

(5) The document that summarizes your responses to the public comments you received during the initial public comment period, as specified in § 60.1085(a).

(b) If you are not required to submit an application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, you must submit the items in paragraph (a) of this section with your notice of construction.

**§ 60.1380 What must I include in my notice of construction?**

(a) Include ten items:

(1) A statement of your intent to construct the municipal waste combustion unit.

(2) The planned initial startup date of your municipal waste combustion unit.

(3) The types of fuels you plan to combust in your municipal waste combustion unit.

(4) The capacity of your municipal waste combustion unit including supporting capacity calculations, as specified in § 60.1460(d) and (e).

(5) Your siting analysis, as specified in § 60.1125.

(6) Your final materials separation plan, as specified in § 60.1100(b).

(7) Your notice of the second public meeting (siting analysis meeting), as specified in § 60.1130(b).

(8) A transcript of the second public meeting, as specified in § 60.1140(d).

(9) A copy of the document that summarizes your responses to the public comments you received during the second public comment period, as specified in § 60.1145(a).

(10) Your final siting analysis, as specified in § 60.1145(c).

(b) Submit your notice of construction no later than 30 days after you commence construction, reconstruction, or modification of your municipal waste combustion unit.

**§ 60.1385 What reports must I submit after I submit my notice of construction and in what form?**

(a) Submit an initial report and annual reports, plus semiannual reports for any emission or parameter level that does not meet the limits specified in this subpart.

(b) Submit all reports on paper, postmarked on or before the submittal dates in §§ 60.1395, 60.1405, and 60.1420. If the Administrator agrees, you may submit electronic reports.

(c) Keep a copy of all reports required by §§ 60.1400, 60.1410, and 60.1425 onsite for 5 years.

**§ 60.1390 What are the appropriate units of measurement for reporting my data?**

See Tables 1 and 2 of this subpart for appropriate units of measurement.

**§ 60.1395 When must I submit the initial report?**

As specified in § 60.7(c), submit your initial report within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

**§ 60.1400 What must I include in my initial report?**

You must include seven items:

(a) The emission levels measured on the date of the initial evaluation of your continuous emission monitoring systems for all of the following five pollutants or parameters as recorded in accordance with § 60.1365(b).

(1) The 24-hour daily geometric average concentration of sulfur dioxide emissions or the 24-hour daily geometric percent reduction of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, the 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions.

(4) The 4-hour block arithmetic average load level of your municipal waste combustion unit.

(5) The 4-hour block arithmetic average flue gas temperature at the inlet of the particulate matter control device.

(b) The results of the initial stack tests for eight pollutants or parameters (use appropriate units as specified in Table 2 of this subpart):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

(c) The test report that documents the initial stack tests including supporting calculations.

(d) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in appendix B of this part in conducting the evaluation.

(e) The maximum demonstrated load of your municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device. Use values established during your initial stack test for dioxins/furans emissions and include supporting calculations.

(f) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the average carbon feed rates that you recorded during the initial stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in § 60.1370(a)(1) and (2).

(g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.1255.

**§ 60.1405 When must I submit the annual report?**

Submit the annual report no later than February 1 of each year that follows the calendar year in which you collected the data. If you have an operating permit for any unit under title V of the Clean Air Act (CAA), the permit may require you to submit semiannual reports. Parts 70 and 71 of this chapter contain program requirements for permits.

**§ 60.1410 What must I include in my annual report?**

Summarize data collected for all pollutants and parameters regulated under this subpart. Your summary must include twelve items:

(a) The results of the annual stack test, using appropriate units, for eight pollutants, as recorded under § 60.1360(a):

(1) Dioxins/furans.
(2) Cadmium.
(3) Lead.
(4) Mercury.
(5) Particulate matter.
(6) Opacity.
(7) Hydrogen chloride.
(8) Fugitive ash.

(b) A list of the highest average levels recorded, in the appropriate units. List the values for five pollutants or parameters:

(1) Sulfur dioxide emissions.
(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
(3) Carbon monoxide emissions.
(4) Load level of the municipal waste combustion unit.
(5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average).

(c) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system (§ 60.1365(a)(1)).

(d) For municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions, include four records:

(1) The average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests.
(2) The lowest 8-hour block average carbon feed rate recorded during the year.
(3) The total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant.
(4) The required quarterly carbon usage of your municipal waste combustion plant calculated using equation 4 or 5 in § 60.1460(f). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant.

(e) The total number of days that you did not obtain the minimum number of hours of data for six pollutants or parameters. Include the reasons you did not obtain the data and corrective actions that you have taken to obtain the data in the future. Include data on:

(1) Sulfur dioxide emissions.
(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
(3) Carbon monoxide emissions.
(4) Load level of the municipal waste combustion unit.
(5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
(6) Carbon feed rate.

(f) The number of hours you have excluded data from the calculation of average levels (include the reasons for excluding it). Include data for six pollutants or parameters:

(1) Sulfur dioxide emissions.
(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
(3) Carbon monoxide emissions.
(4) Load level of the municipal waste combustion unit.
(5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
(6) Carbon feed rate.

(g) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year, if you are eligible for alternative scheduling (§ 60.1305(a) or (b)).

(h) A notice of your intent to begin a reduced stack testing schedule for other pollutants during the following calendar year if you are eligible for alternative scheduling (§ 60.1305(a)).

(i) A summary of any emission or parameter level that did not meet the limits specified in this subpart.

(j) A summary of the data in paragraphs (a) through (d) of this section from the year preceding the reporting year which gives the Administrator a summary of the performance of the municipal waste combustion unit over a 2-year period.

(k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in § 60.1255.

(l) Documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 hours.

**§ 60.1415 What must I do if I am out of compliance with the requirements of this subpart?**

You must submit a semiannual report on any recorded emission or parameter level that does not meet the requirements specified in this subpart.

**§ 60.1420 If a semiannual report is required, when must I submit it?**

(a) For data collected during the first half of a calendar year, submit your semiannual report by August 1 of that year.

(b) For data you collected during the second half of the calendar year, submit your semiannual report by February 1 of the following year.

**§ 60.1425 What must I include in the semiannual out-of-compliance reports?**

You must include three items in the semiannual report:

(a) For any of the following six pollutants or parameters that exceeded the limits specified in this subpart, include the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and your corrective actions:

(1) Concentration or percent reduction of sulfur dioxide emissions.
(2) For Class I municipal waste combustion units only, concentration of nitrogen oxides emissions.
(3) Concentration of carbon monoxide emissions.
(4) Load level of your municipal waste combustion unit.
(5) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.
(6) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.

(b) If the results of your annual stack tests (as recorded in § 60.1360(a)) show emissions above the limits specified in Table 1 of this subpart for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and your corrective actions.

(c) For municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions, include two items:

(1) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from the carbon

injection system operating parameter) is less than the highest carbon feed rate established during the most recent mercury and dioxins/furans stack test (as specified in § 60.1370(a)(1)). Include four items:

(i) Eight-hour average carbon feed rate.

(ii) Reasons for occurrences of low carbon feed rates.

(iii) The corrective actions you have taken to meet the carbon feed rate requirement.

(iv) The calendar date.

(2) Documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include five items:

(i) Amount of carbon purchased and delivered to the plant.

(ii) Required quarterly usage of carbon.

(iii) Reasons for not meeting the required quarterly usage of carbon.

(iv) The corrective actions you have taken to meet the required quarterly usage of carbon.

(v) The calendar date.

**§ 60.1430 Can reporting dates be changed?**

(a) If the Administrator agrees, you may change the semiannual or annual reporting dates.

(b) See § 60.19(c) for procedures to seek approval to change your reporting date.

## Air Curtain Incinerators that Burn 100 Percent Yard Waste

**§ 60.1435 What is an air curtain incinerator?**

An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.

**§ 60.1440 What is yard waste?**

Yard waste is grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(a) Construction, renovation, and demolition wastes that are exempt from the definition of "municipal solid waste" in § 60.1465.

(b) Clean wood that is exempt from the definition of "municipal solid waste" in § 60.1465.

**§ 60.1445 What are the emission limits for air curtain incinerators that burn 100 percent yard waste?**

If your air curtain incinerator combusts 100 percent yard waste, you must meet only the emission limits in this section.

(a) Within 60 days after your air curtain incinerator reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup, you must meet two limits:

(1) The opacity limit is 10 percent (6-minute average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste.

(2) The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Except during malfunctions, the requirements of this subpart apply at all times. Each malfunction must not exceed 3 hours.

**§ 60.1450 How must I monitor opacity for air curtain incinerators that burn 100 percent yard waste?**

(a) Use EPA Reference Method 9 in appendix A of this part to determine compliance with the opacity limit.

(b) Conduct an initial test for opacity as specified in § 60.8.

(c) After the initial test for opacity, conduct annual tests no more than 13 calendar months following the date of your previous test.

**§ 60.1455 What are the recordkeeping and reporting requirements for air curtain incinerators that burn 100 percent yard waste?**

(a) Provide a notice of construction that includes four items:

(1) Your intent to construct the air curtain incinerator.

(2) Your planned initial startup date.

(3) Types of fuels you plan to combust in your air curtain incinerator.

(4) The capacity of your incinerator, including supporting capacity calculations, as specified in § 60.1460(d) and (e).

(b) Keep records of results of all opacity tests onsite in either paper copy or electronic format unless the Administrator approves another format.

(c) Keep all records for each incinerator for at least 5 years.

(d) Make all records available for submittal to the Administrator or for onsite review by an inspector.

(e) Submit the results (each 6-minute average) of the opacity tests by February 1 of the year following the year of the opacity emission test.

(f) Submit reports as a paper copy on or before the applicable submittal date. If the Administrator agrees, you may submit reports on electronic media.

(g) If the Administrator agrees, you may change the annual reporting dates (see § 60.19(c)).

(h) Keep a copy of all reports onsite for a period of 5 years.

## Equations

**§ 60.1460 What equations must I use?**

(a) *Concentration correction to 7 percent oxygen.* Correct any pollutant concentration to 7 percent oxygen using equation 1 of this section:

$$C_{7\%} = C_{unc} * (13.9) * (1/(20.9 - CO_2)) \quad \text{(Eq.1)}$$

Where:

$C_{7\%}$ = concentration corrected to 7 percent oxygen.

$C_{unc}$ = uncorrected pollutant concentration.

$CO_2$ = concentration of oxygen (percent).

(b) *Percent reduction in potential mercury emissions.* Calculate the percent reduction in potential mercury emissions ($\%P_{Hg}$) using equation 2 of this section:

$$\%P_{Hg} = (E_{i-o}) * (100/E_i) \quad \text{(Eq. 2)}$$

Where:

$\%P_{Hg}$ = percent reduction of potential mercury emissions

$E_i$ = mercury emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis

$E_o$ = mercury emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(c) *Percent reduction in potential hydrogen chloride emissions.* Calculate the percent reduction in potential hydrogen chloride emissions ($\%P_{HCl}$) using equation 3 of this section:

$$\%P_{HCl} = (E_i - E_o) * (100/E_i) \quad \text{(Eq. 3)}$$

Where:

$\%P_{HCl}$ = percent reduction of the potential hydrogen chloride emissions

$E_I$ = hydrogen chloride emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis

$E_O$ = hydrogen chloride emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(d) *Capacity of a municipal waste combustion unit.* For a municipal waste combustion unit that can operate continuously for 24-hour periods, calculate the municipal waste combustion unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(i) If your municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(ii) If your municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For municipal waste combustion units with a design not based on heat input capacity, use the maximum designed charging rate.

(e) *Capacity of a batch municipal waste combustion unit.* Calculate the capacity of a batch municipal waste combustion unit as the maximum design amount of municipal solid waste they can charge per batch multiplied by the maximum number of batches they can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the municipal waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours.

(f) *Quarterly carbon usage.* If you use activated carbon to comply with the dioxins/furans or mercury limits, calculate the required quarterly usage of carbon using equation 4 of this section for plant basis or equation 5 of this section for unit basis:

(1) Plant basis.

$$C = \sum_{i=1}^{n} f_i * h_i \qquad \text{(Eq. 4)}$$

Where:

C = required quarterly carbon usage for the plant in kilograms (or pounds).

$f_i$ = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

$h_i$ = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

n = number of municipal waste combustion units, i, located at your plant.

(2) Unit basis.

$$C = f * h \qquad \text{(Eq. 5)}$$

Where:

C = required quarterly carbon usage for the unit in kilograms (or pounds).

f = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

**Definitions**

**§ 60.1465 What definitions must I know?**

Terms used but not defined in this section are defined in the CAA and in subparts A and B of this part.

*Administrator* means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or the Administrator of a State Air Pollution Control Agency.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.

*Batch municipal waste combustion unit* means a municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 (or 366 consecutive days for leap years) consecutive days starting on January 1 and ending on December 31.

*Chief facility operator* means the person in direct charge and control of the operation of a municipal waste combustion unit. That person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit.

*Class I units* mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See the definition in this section of "municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

*Class II units* mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See the definition in this section of "municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

*Clean wood* means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include two items:

(1) "Yard waste," which is defined elsewhere in this section.

(2) Construction, renovation, or demolition wastes (for example, railroad ties and telephone poles) that are exempt from the definition of "municipal solid waste" in this section.

*Co-fired combustion unit* means a unit that combusts municipal solid waste with nonmunicipal solid waste fuel (for example, coal, industrial process waste). To be considered a co-fired combustion unit, the unit must be subject to a federally enforceable permit that limits it to combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as measured each calendar quarter.

*Continuous burning* means the continuous, semicontinuous, or batch feeding of municipal solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not mean the use of municipal solid waste solely to thermally protect the grate or hearth during the startup period when municipal solid waste is not fed to the grate or hearth.

*Continuous emission monitoring system* means a monitoring system *that continuously measures the emissions of a pollutant from a municipal waste combustion unit.*

*Dioxins/furans* mean tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Eight-hour block average* means the average of all hourly emission concentrations or parameter levels when

the municipal waste combustion unit operates and combusts municipal solid waste measured over any of three 8-hour periods of time:

(1) 12:00 midnight to 8:00 a.m.
(2) 8:00 a.m. to 4:00 p.m.
(3) 4:00 p.m. to 12:00 midnight.

*Federally enforceable* means all limits and conditions the Administrator can enforce (including the requirements of 40 CFR parts 60, 61, and 63), requirements in a State's implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*First calendar half* means the period that starts on January 1 and ends on June 30 in any year.

*Fluidized bed combustion unit* means a unit where municipal waste is combusted in a fluidized bed of material. The fluidized bed material may remain in the primary combustion zone or may be carried out of the primary combustion zone and returned through a recirculation loop.

*Four-hour block average* or *4-hour block average* means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of six 4-hour periods:

(1) 12:00 midnight to 4:00 a.m.
(2) 4:00 a.m. to 8:00 a.m.
(3) 8:00 a.m. to 12:00 noon.
(4) 12:00 noon to 4:00 p.m.
(5) 4:00 p.m. to 8:00 p.m.
(6) 8:00 p.m. to 12:00 midnight.

*Mass burn refractory municipal waste combustion unit* means a field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, that includes municipal waste combustion units with a cylindrical rotary refractory wall furnace.

*Mass burn rotary waterwall municipal waste combustion unit* means a field-erected municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

*Mass burn waterwall municipal waste combustion unit* means a field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace.

*Materials separation plan* means a plan that identifies a goal and an approach for separating certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include three items:

(1) Elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems.

(2) Different goals or approaches for different subareas in the service area.

(3) No materials separation activities for certain subareas or, if warranted, the entire service area.

*Maximum demonstrated load of a municipal waste combustion unit* means the highest 4-hour block arithmetic average municipal waste combustion unit load achieved during 4 consecutive hours in the course of the most recent dioxins/furans stack test that demonstrates compliance with the applicable emission limit for dioxins/furans specified in this subpart.

*Maximum demonstrated temperature of the particulate matter control device* means the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent stack test for dioxins/furans emissions that demonstrates compliance with the limits specified in this subpart.

*Medical/infectious waste* means any waste meeting the definition of "medical/infectious waste" in § 60.51c of subpart E, of this part.

*Mixed fuel-fired (pulverized coal/refuse-derived fuel) combustion unit* means a combustion unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is combusted in suspension. That includes both conventional pulverized coal and micropulverized coal.

*Modification* or *modified municipal waste combustion unit* means a municipal waste combustion unit you have changed after June 6, 2001 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs.

(2) Any physical change in the municipal waste combustion unit or change in the method of operating it that increases the emission level of any air pollutant for which new source performance standards have been established under section 129 or section 111 of the CAA. Increases in the emission level of any air pollutant are determined when the municipal waste combustion unit operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.

*Modular excess-air municipal waste combustion unit* means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

*Modular starved-air municipal waste combustion unit* means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

*Municipal solid waste* or *municipal-type solid waste* means household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

*Municipal waste combustion plant* means one or more municipal waste combustion units at the same location as specified under Applicability (§ 60.1015(a)and (b)).

*Municipal waste combustion plant capacity* means the aggregate municipal waste combustion capacity of all municipal waste combustion units at the plant that are subject to subparts Ea or Eb of this part, or this subpart.

*Municipal waste combustion unit* means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion

units (with or without heat recovery), modular combustion units (starved-air or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further define municipal waste combustion units:

(1) Municipal waste combustion units do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under Applicability (§ 60.1020(h) and (i)). Municipal waste combustion units also do not include cement kilns that combust municipal solid waste as specified under Applicability (§ 60.1020(j)). Municipal waste combustion units also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas:

(i) The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.

(ii) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(iii) The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.

*Particulate matter* means total particulate matter emitted from municipal waste combustion units as measured using EPA Reference Method 5 in appendix A of this part and the procedures specified in § 60.1300.

*Plastics or rubber recycling unit* means an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed and marketed to become input feed stock for chemical plants or petroleum refineries. The following three criteria further define a plastics or rubber recycling unit:

(1) Each calendar quarter, the combined weight of the feed stock that a plastics or rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that recycling unit processes.

(2) The plastics, rubber, or rubber tires fed to the recycling unit may originate from separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid waste. The feed materials may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards.

(3) The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle caps).

*Potential hydrogen chloride emissions* means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

*Potential mercury emissions* means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without controls for mercury emissions.

*Potential sulfur dioxide emissions* means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

*Pyrolysis/combustion unit* means a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

*Reconstruction* means rebuilding a municipal waste combustion unit and meeting two criteria:

(1) The reconstruction begins after June 6, 2001.

(2) The cumulative cost of the construction over the life of the unit exceeds 50 percent of the original cost of building and installing the municipal waste combustion unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the municipal waste combustion unit used to calculate those costs, see the definition in this section of "municipal waste combustion unit."

*Refractory unit* or *refractory wall furnace* means a municipal waste combustion unit that has no energy recovery (such as through a waterwall) in the furnace of the municipal waste combustion unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. That includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Same location* means the same or contiguous properties under common ownership or control, including those separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a municipality, other governmental unit, or any quasi-governmental authority (for example, a public utility district or regional authority for waste disposal).

*Second calendar half* means the period that starts on July 1 and ends on December 31 in any year.

*Shift supervisor* means the person who is in direct charge and control of operating a municipal waste combustion unit and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit during an assigned shift.

*Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit* means a municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Standard conditions* when referring to units of measure mean a temperature of 20 °C and a pressure of 101.3 kilopascals.

*Startup period* means the period when a municipal waste combustion unit begins the continuous combustion of municipal solid waste. It does not include any warmup period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal solid waste.

*Stoker (refuse-derived fuel) combustion unit* means a steam generating unit that combusts refuse-derived fuel in a semisuspension

combusting mode, using air-fed distributors.

*Total mass dioxins/furans* or *total mass* means the total mass of tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans as determined using EPA Reference Method 23 in appendix A of this part and the procedures specified in § 60.1300.

*Twenty-four hour daily average* or *24-hour daily average* means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the municipal waste combustion unit operates and combusts municipal solid waste measured during the 24 hours between 12:00 midnight and the following midnight.

*Untreated lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

*Waterwall furnace* means a municipal waste combustion unit that has energy (heat) recovery in the furnace (for example, radiant heat transfer section) of the combustion unit.

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(1) Construction, renovation, and demolition wastes that are exempt from the definition of "municipal solid waste" in this section.

(2) Clean wood that is exempt from the definition of "municipal solid waste" in this section.

**Tables**

TABLE 1 OF SUBPART AAAA—EMISSION LIMITS FOR NEW SMALL MUNICIPAL WASTE COMBUSTION UNITS

| For the following pollutants | You must meet the following emission limits[a] | Using the following averaging times | And determine compliance by the following methods |
|---|---|---|---|
| 1. Organics | | | |
| Dioxins/Furans (total mass basis). | 13 nanograms per dry standard cubic meter. | 3-run average (minimum run duration is 4 hours). | Stack test. |
| 2. Metals: | | | |
| Cadmium | 0.020 milligrams per dry standard cubic meter. | 3-run average (run duration specified in test method). | Stack test. |
| Lead | 0.20 milligrams per dry standard cubic meter. | 3-run average (run duration specified in test method). | Stack test. |
| Mercury | 0.080 milligrams per dry standard cubic meter or 85 percent reduction of potential mercury emissions. | 3-run average (run duration specified in test method). | Stack test. |
| Opacity | 10 percent | Thirty 6-minute averages | Stack test. |
| Particulate Matter | 24 milligrams per dry standard cubic meter | 3-run average (run duration specified in test method). | Stack test. |
| 3. Acid Gases: | | | |
| Hydrogen Chloride | 25 parts per million by dry volume or 95 percent reduction of potential hydrogen chloride emissions. | 3-run average (minimum run duration is 1 hour). | Stack test |
| Nitrogen Oxides (Class I units)[b]. | 150 (180 for 1st year of operation) parts per million by dry volume. | 24-hour daily block arithmetic average concentration. | Continuous emission monitoring system. |
| Nitrogen Oxides (Class II units)[c]. | 500 parts per million by dry volume | See footnote[d] | See footnote[d] |
| Sulfur Dioxide | 30 parts per million by dry volume or 80 percent reduction of potential sulfur dioxide emissions. | 24-hour daily block geometric average concentration or percent reduction. | Continuous monitoring emission system. |
| 4. Other: | | | |
| Fugitive Ash | Visible emissions for no more than 5 percent of hourly observation period. | Three 1-hour observation periods | Visible emission test. |

[a] All emission limits (except for opacity) are measured at 7 percent oxygen.

[b] Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.

[c] Class II units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity no more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.

[d] No monitoring, testing, recordkeeping, or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.

TABLE 2 OF SUBPART AAAA—CARBON MONOXIDE EMISSION LIMITS FOR NEW SMALL MUNICIPAL WASTE COMBUSTION UNITS

| For the following municipal waste combustion units | You must meet the following carbon monoxide limits[a] | Using the following averaging times[b] |
|---|---|---|
| 1. Fluidized-bed | 100 parts per million by dry volume | 4-hour. |
| 2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel) | 200 parts per million by dry volume | 24-hour.[c] |
| 3. Mass burn rotary refractory | 100 parts per million by dry volume | 4-hour. |

TABLE 2 OF SUBPART AAAA—CARBON MONOXIDE EMISSION LIMITS FOR NEW SMALL MUNICIPAL WASTE COMBUSTION UNITS—Continued

| For the following municipal waste combustion units | You must meet the following carbon monoxide limits [a] | Using the following averaging times [b] |
|---|---|---|
| 4. Mass burn rotary waterwall | 100 parts per million by dry volume | 24-hour. |
| 5. Mass burn waterwall and refractory | 100 parts per million by dry volume | 4-hour. |
| 6. Mixed fuel-fired (pulverized coal/refuse-derived fuel) | 150 parts per million by dry volume | 4-hour. |
| 7. Modular starved-air and excess air | 50 parts per million by dry volume | 4-hour. |
| 8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel). | 150 parts per million by dry volume | 24-hour daily. |
| 9. Stoker, refuse-derived fuel | 150 parts per million by dry volume | 24-hour daily. |

[a] All limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.
[b] Block averages, arithmetic mean. See § 60.1465 for definitions.
[c] 24-hour block average, geometric mean. See § 60.1465 for definitions.

TABLE 3 OF SUBPART AAAA—REQUIREMENTS FOR VALIDATING CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

| For the following continuous emission monitoring systems | Use the following methods in appendix A of this part to validate pollutant concentration levels | Use the following methods in appendix A of this part to measure oxygen (or carbon dioxide) |
|---|---|---|
| 1. Nitrogen Oxides (Class I units only) [a] | Method 7, 7A, 7B, 7C, 7D, or 7E | Method 3 or 3A. |
| 2. Sulfur Dioxide | Method 6 or 6C | Method 3 or 3A. |
| 3. Carbon Monoxide | Method 10, 10A, or 10B | Method 3 or 3A. |

[a] Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.

TABLE 4 OF SUBPART AAAA—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

| For the following pollutants | Use the following span values for your CEMS | Use the following performance specifications in appendix B of this part for your CEMS | If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part to collect data |
|---|---|---|---|
| 1. Opacity | 100 percent opacity | P.S. 1 | Method 9. |
| 2. Nitrogen Oxides (Class I units only) [a]. | Control device outlet: 125 percent of the maximum expected hourly potential nitrogen oxides emissions of the municipal waste combustion unit. | P.S. 2 | Method 7E. |
| 3. Sulfur Dioxide | Inlet to control device: 125 percent of the maximum expected sulfur dioxide emissions of the municipal waste combustion unit. Control device outlet: 50 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit. | P.S. 2 | Method 6C. |
| 4. Carbon Monoxide | 125 percent of the maximum expected hourly potential carbon with monoxide emissions of the municipal waste combustion unit. | P.S. 4A | Method 10 alternative interference trap. |
| 5. Oxygen or Carbon Dioxide | 25 percent oxygen or 25 percent carbon dioxide | P.S. 3 | Method 3A or 3B. |

[a] Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.

TABLE 5 OF SUBPART AAAA—REQUIREMENTS FOR STACK TESTS

| To measure the following pollutants | Use the following methods in appendix A of this part to determine the sampling location | Use the methods in appendix A of this part to measure pollutant concentration | Also note the following additional information |
|---|---|---|---|
| 1. Organics: Dioxins/Furans | Method 1 | Method 23 [a] | The minimum sampling time must be 4 hours per test run while the municipal waste combustion unit is operating at full load. |
| 2. Metals: Cadmium | Method 1 | Method 29 [a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load. |
| Lead | Method 1 | Method 29 [a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load. |

TABLE 5 OF SUBPART AAAA—REQUIREMENTS FOR STACK TESTS—Continued

| To measure the following pollutants | Use the following methods in appendix A of this part to determine the sampling location | Use the methods in appendix A of this part to measure pollutant concentration | Also note the following additional information |
|---|---|---|---|
| Mercury | Method 1 | Method 29 [a] | Compliance testing must be performed while the municipal waste combustion unit is operating at full load. |
| Opacity | Method 9 | Method 9 | Use Method 9 to determine compliance with opacity limit. 3-hour observation period (thirty 6-minute averages). |
| Particulate Matter | Method 1 | Method 5 [a] | The minimum sample Matter volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 ±14°C. The minimum sampling time is 1 hour. |
| 3. Acid Gases: [b] | | | |
| Hydrogen Chloride | Method 1 | Method 26 or 26A [a] | Test runs must be at least 1 hour long while the municipal waste combustion unit is operating at full load. |
| 4. Other: [b] | | | |
| Fugitive Ash | Not applicable | Method 22 (visible emissions). | The three 1-hour observation period must include periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks. |

[a] Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B in appendix A of this part.
[b] Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for quality assurance requirements in Appendix F of this part.

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Part II

# Environmental Protection Agency

40 CFR Part 60
Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–6905–1]**

**RIN 2060–AF91**

## Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final standards and guidelines.

**SUMMARY:** We are promulgating standards and guidelines for new and existing commercial and industrial solid waste incineration (CISWI) units. These standards and guidelines fulfill the requirements of sections 111 and 129 of the Clean Air Act (CAA), which require us to promulgate standards and guidelines for CISWI units. The final standards and guidelines will protect public health by reducing exposure to air pollution, including several hazardous air pollutants (HAP) that can cause toxic effects such as eye, nose, throat, and skin irritation; reproductive effects; and cancer. These standards and guidelines apply only to CISWI units burning nonhazardous wastes.

**EFFECTIVE DATE:** January 30, 2001.

**ADDRESSES:** *Docket.* Docket No. A–94–63 contains the supporting information used in developing the final standards and guidelines and is available for public inspection and copying between 8 a.m. and 5:30 p.m., Monday through Friday, at the Air and Radiation Docket and Information Center, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, telephone (202) 260–7548, fax (202) 260–4000. The docket is available at the above address in Room M–1500, Waterside Mall (ground floor, central mall). A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Fred Porter, Combustion Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, North Carolina 27711, (919) 541–5251, e-mail: *porter.fred@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

*Background Information.* A list of combustion related rules is available on the Combustion Group website on the EPA Technology Transfer Network website (TTN Web) at *http://www.epa.gov/ttn/uatw/combust/list.html.* You may obtain **Federal Register** notices, supporting information, and docket indices for these combustion related rules.

*Regulated Entities.* These standards and guidelines affect the following North American Industrial Classification System (NAICS) and Standard Industrial Classification (SIC) codes:

| Category | NAICS Code | SIC Code | Examples of potentially regulated entities |
|---|---|---|---|
| Any industry using a solid waste incinerator as defined in the regulations. | 325 | 28 | Manufacturers of chemicals and allied products. |
| | 325 | 34 | Manufacturers of electronic equipment. |
| | 421 | 36 | Manufacturers of wholesale trade, durable goods. |
| | 321, 337 | 24, 25 | Manufacturers of lumber and wood furniture. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities that could be affected by this action. Other types of entities not listed in this table could also be affected. To determine whether your facility, company, business organization, etc., is regulated by this action, you should carefully examine the applicability criteria in 40 CFR 60.2010 of subpart CCCC and 40 CFR 60.2505 of subpart DDDD.

*Judicial Review.* We proposed this rule for CISWI units in the **Federal Register** on November 30, 1999 (64 FR 67092). This action adopting a rule for CISWI units constitutes final administrative action on that proposal. Under section 307(b)(1) of the CAA, judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by January 30, 2001. Under section 307(d)(7)(B) of the CAA, only an objection to this rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce these requirements.

*Organization of this Document.* The following outline is provided to aid in locating information in this preamble. With the exception of section V, which covers various administrative requirements, each section heading of the preamble is presented as a question, and the text in the section answers the question.

**I. Background Information**

A. What information is covered in this preamble?
B. Where in the Code of Federal Regulations will these standards and guidelines be codified?
C. What is the regulatory development background for these standards and guidelines?
D. What is the statutory authority for these standards and guidelines?
E. What are new source performance standards?
F. What are emission guidelines?
G. How are the emission guidelines implemented?

**II. Summary of the NSPS and EG**

A. Do the standards and guidelines apply to me?
B. What emission limitations must I meet?
C. What operating limits must I meet?
D. What are the other requirements?
E. What are the requirements for air curtain incinerators?

**III. Significant Issues and Changes**

A. Are very small municipal waste combustion units covered?
B. Are cyclonic barrel burners covered?
C. Has the definition of a CISWI unit or solid waste changed?
D. Which elements of the definition of solid waste have been retained and clarified?
E. Were significant issues raised regarding EPA's approach to setting the proposed standards and guidelines, and has EPA made any changes?

**IV. Impacts of the Final NSPS and EG**

A. What are the air impacts for new units?
B. What are the air impacts for existing units?

**V. Administrative Requirements**

A. Executive Order 12866: Regulatory Planning and Review
B. Executive Order 13132: Federalism
C. Executive Order 13084: Consultation and Coordination with Indian Tribal Governments
D. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
E. Unfunded Mandates Reform Act
F. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory

Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*
G. Paperwork Reduction Act
H. National Technology Transfer and Advancement Act
I. Congressional Review Act

### Abbreviations and Acronyms Used in This Document

BDT Best demonstrated technology
Btu British thermal units
CAA Clean Air Act
CFR Code of Federal Regulations
CISWI Commercial and industrial solid waste incineration
EG Emission guidelines
EPA Environmental Protection Agency
FACA Federal Advisory Committee Act
FR Federal Register
HMIWI Hospital/medical/infectious waste incineration
HWI Hazardous waste incinerator
ICCR Industrial Combustion Coordinated Rulemaking
ICR Information Collection Request
kg/hr Kilograms per hour
lbs/hr Pounds per hour
MACT Maximum achievable control technology
mg/dscm Milligrams per dry standard cubic meter
Mg/yr Megagrams per year
MWC Municipal waste combustion
NAICS North American Industrial Classification System
ng/dscm Nanograms per dry standard cubic meter
NSPS New source performance standards
NTTAA National Technology Transfer and Advancement Act
OMB Office of Management and Budget
ppm Parts per million
RFA Regulatory Flexibility Act
SBA Small Business Administration
SBREFA Small Business Regulatory Enforcement Fairness Act
SIC Standard Industrial Classification
SWDA Solid Waste Disposal Act
TEQ Toxic equivalency
TTN Web Technology Transfer Network Website
UMRA Unfunded Mandates Reform Act
U.S.C. United States Code

## I. Background Information

### *A. What Information is Covered in This Preamble?*

We summarize the important features of the standards and guidelines that apply to CISWI units in this preamble. The preamble also outlines the significant issues and changes in response to public comments, the environmental impacts of these standards and guidelines, and the administrative requirements relative to this action.

### *B. Where in the Code of Federal Regulations Will These Standards and Guidelines be Codified?*

The Code of Federal Regulations (CFR) is a codification of the general and permanent rules published in the **Federal Register** by the Executive departments and agencies of the Federal Government. The code is divided into 50 titles that represent broad areas subject to Federal regulation. The final standards and guidelines for CISWI units will be published in Title 40, Protection of the Environment. Part 60 of title 40 includes standards of performance for new stationary sources and emission guidelines and compliance times for existing sources. The table below lists the subparts in which the standards and guidelines will be codified.

| Title of the regulation | Subpart in title 40, part 60 |
|---|---|
| Standards of Performance for New Stationary Sources: Commercial and Industrial Solid Waste Incineration Units | Subpart CCCC. |
| Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units | Subpart DDDD. |

### *C. What is the Regulatory Development Background for These Standards and Guidelines?*

Section 129 of the CAA requires us to develop new source performance standards (NSPS) and emission guidelines (EG) for "solid waste incineration units combusting commercial or industrial waste." We refer to these units as "commercial and industrial solid waste incineration" (CISWI) units. On December 28, 1994 (59 FR 66850), the EPA published an advance notice of proposed rulemaking in the **Federal Register**. That notice requested information and data concerning the operation, location, emissions, and emission controls for CISWI units.

In September 1996, we chartered the Industrial Combustion Coordinated Rulemaking (ICCR) advisory committee under the Federal Advisory Committee Act (FACA). The committee's objective was to develop recommendations for regulations for several combustion source categories under sections 112 and 129 of the CAA. The ICCR advisory committee, known as the Coordinating Committee, formed Source Work Groups for the various combustor types covered under the ICCR. One work group, the Incinerator Work Group, was formed to research issues related to CISWI units. The Incinerator Work Group submitted recommendations, information, and data analysis results to the Coordinating Committee, which in turn considered them and submitted recommendations and information to us. We have reviewed and considered the Committee's recommendations in developing these regulations for CISWI units. The Committee's 2-year charter expired in September 1998.

Pursuant to a February 1995 consent decree (as modified in July 1997), the Administrator was required to sign a notice of proposed rulemaking for CISWI units by November 15, 1999 for publication in the **Federal Register**. The consent decree also requires the Administrator to sign a notice of final rulemaking for CISWI units by November 15, 2000 for publication in the **Federal Register**.

The proposed rule satisfies the first requirement in the consent decree, and this final rule satisfies the second requirement.

### *D. What is the Statutory Authority for These Standards and Guidelines?*

Section 129 of the CAA requires us to develop and adopt NSPS and EG for CISWI units pursuant to section 111 of the CAA. Section 111(b) requires us to establish NSPS for new sources, and section 111(d) requires us to establish EG for existing sources. Under section 129, the NSPS and EG adopted for CISWI units must reflect maximum achievable control technology (MACT). This term "MACT" is defined in section 129 of the CAA as the maximum degree of reduction in emissions of air pollutants that the Administrator determines is achievable, taking into consideration the cost of achieving the reductions and any nonair quality health and environmental impacts and energy requirements.

### *E. What are New Source Performance Standards?*

The NSPS apply to new stationary sources, that is, sources whose construction begins after the NSPS is proposed or sources that are reconstructed or modified on or after a specified date. The following are the key elements in an NSPS.

1. *Source category* means the industry or type of process that is regulated. The source category in today's final standards is CISWI units.

2. *Affected facility* means the equipment subject to the NSPS. The

affected facility in today's final standards is each individual CISWI unit.

3. *Pollutants* means the particular air pollutants emitted by the affected facility that the standards regulate. Section 129 requires us to regulate nine pollutants: cadmium, carbon monoxide, dioxins/furans, fine and total particulate matter, hydrogen chloride, lead, mercury, oxides of nitrogen, and sulfur dioxide. Under section 129, opacity standards may also be required as appropriate.

4. *Maximum achievable control technology* means the technology on which the emission standards will be based. Section 129(a)(2) specifies that standards be based on "the maximum degree of reduction in emissions . . . that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determines is achievable * * *." (Note that the basis of these solid waste incineration standards is different from that of the typical NSPS under section 111. The basis of the typical NSPS is "best demonstrated technology." These solid waste incineration NSPS are based on MACT and, in this sense, therefore, are similar to national emission standards for hazardous air pollutants (NESHAP) for new sources under section 112.)

5. *Format* means the form in which the standards are expressed; for example, as pollutant concentration emission limitations, as a percent reduction in emissions, or as equipment or work practice requirements.

6. *Standards* generally means emission limitations based on the level of reduction that the MACT can achieve. Under certain circumstances, it may not be possible to develop emission limitations if the level of performance cannot be identified. Only in unusual cases do standards require that a specific technology be used. In general, the source owner or operator may select any method for complying with the emission limitations.

7. *Other considerations.* In addition to emission limitations, NSPS usually include monitoring requirements, performance test methods and compliance procedures, and reporting and recordkeeping requirements. Section 129 also directs EPA to establish siting requirements for new incineration units and operator certification and training requirements for all units.

*F. What Are Emission Guidelines?*

The EG are similar to the NSPS, except that they apply to existing sources, that is, sources whose construction begins on or before the date the NSPS is proposed, or sources that are reconstructed or modified before a specified date. Unlike NSPS, the EG are not enforceable until EPA approves a State plan or adopts a Federal plan for implementing and enforcing them, and the State or Federal plan becomes effective. (Note that the basis of these solid waste incineration guidelines is different from that of the typical EG under section 111. The basis of the typical EG is "best demonstrated technology." These solid waste incineration EG are based on MACT and, in this sense, therefore, are similar to national emission standards for hazardous air pollutants (NESHAP) for existing sources under section 112.)

*G. How Are the Emission Guidelines Implemented?*

When EG are promulgated under sections 111(d) and 129(b), the CAA requires States to adopt and submit to EPA for approval a State plan implementing the EG within 1 year after the promulgation of the EG (section 129(b)(2)). Section 129 requires that the State plan must be at least as protective as the EG and must provide for compliance by affected facilities no later than 3 years after the Administrator approves the State plan, but no later than 5 years after EPA promulgates the EG. Sections 111(d) and 129(b) also require EPA to develop, implement, and enforce a Federal plan if a State fails to submit a satisfactory State plan.

**II. Summary of the NSPS and EG**

This preamble discusses the major requirements of the NSPS and EG as they apply to you, the owner or operator of a new or existing CISWI unit.

*A. Do the Standards and Guidelines Apply to Me?*

The standards and guidelines apply to you if you own or operate a combustion device that combusts commercial and industrial waste (as defined in § 60.2265 of the NSPS and § 60.2875 of the EG). Commercial and industrial waste is solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

Fifteen types of combustion units, which are listed in § 60.2020 of the NSPS and § 60.2555 of the EG, are exempt from these standards and guidelines.

If you began the construction of your CISWI unit on or before November 30, 1999, it is considered an existing CISWI unit and is subject to the EG. If you began the construction of your CISWI unit after November 30, 1999, it is considered a new CISWI unit and is subject to the NSPS.

If you began reconstruction or modification of your CISWI unit prior to June 1, 2001, it is considered an existing CISWI unit and is subject to the EG. Likewise, if you began reconstruction or modification of your CISWI unit on or after June 1, 2001, it is considered a new CISWI unit and is subject to the NSPS.

*B. What Emission Limitations Must I Meet?*

As the owner or operator of a new or existing CISWI unit, you are required to meet the emission limitations specified in Table 1 of this preamble. You must conduct a performance test to show compliance within 60 days after a new CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the unit's initial startup.

As the owner or operator of an existing CISWI unit, you are required to meet the emission limitations specified in Table 1 within 3 years after the Administrator approves the State plan or promulgates a Federal plan. Each existing CISWI unit must be in compliance within 5 years of promulgation of the EG.

TABLE 1.—EMISSION LIMITATIONS FOR NEW AND EXISTING CISWI UNITS

| For these pollutants | You must meet these emission limitations[a] | And determine compliance using these methods[b] |
|---|---|---|
| Cadmium | 0.004 mg/dscm | EPA Method 29. |
| Carbon Monoxide | 157 ppm by dry volume | EPA Methods 10, 10A, or 10B. |
| Dioxins/Furans (TEQ basis) | 0.41 ng/dscm | EPA Method 23. |
| Hydrogen Chloride | 62 ppm by dry volume | EPA Method 26A. |

TABLE 1.—EMISSION LIMITATIONS FOR NEW AND EXISTING CISWI UNITS—Continued

| For these pollutants | You must meet these emission limitations [a] | And determine compliance using these methods [b] |
|---|---|---|
| Lead | 0.04 mg/dscm | EPA Method 29. |
| Mercury | 0.47 mg/dscm | EPA Method 29. |
| Opacity | 10 percent | EPA Method 9. |
| Oxides of Nitrogen | 388 ppm by dry volume | EPA Methods 7, 7A, 7C, 7D, or 7E. |
| Particulate Matter | 70 mg/dscm | EPA Method 5 or 29. |
| Sulfur Dioxide | 20 ppm by dry volume | EPA Method 6 or 6c. |

[a] All emission limitations (except opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b] These methods are in 40 CFR part 60, appendix A.

*C. What Operating Limits Must I Meet?*

If you are using a wet scrubber to comply with the emission limitations, you must establish the maximum and minimum site-specific operating limits indicated in Table 2 of this preamble. You must then operate the CISWI unit and wet scrubber so that the operating parameters do not deviate from the established operating limits.

TABLE 2.—OPERATING LIMITS FOR NEW AND EXISTING CISWI UNITS USING WET SCRUBBERS

| For these operating parameters | You must establish these operating limits | And monitor continuously using these recording times |
|---|---|---|
| Charge rate | Maximum charge rate | Every hour. |
| Pressure drop across the wet scrubber, or amperage to the wet scrubber. | Minimum pressure drop or amperage | Every 15 minutes. |
| Scrubber liquor flow rate | Minimum flow rate | Do. |
| Scrubber liquor pH | Minimum pH | Do. |

**Note:** Compliance is determined on a 3-hour rolling average basis, except charge rate for batch incinerators, which is determined on a daily basis.

If you are using an air pollution control device other than a wet scrubber to comply with the emission limitations, you must petition the Administrator for other site-specific operating limits to be established during the initial performance test and continuously monitored thereafter. The required components of the petition are described in § 60.2115 of the NSPS and § 60.2680 of the EG.

If you are using a fabric filter to comply with the emission limitations, in addition to other operating limits as approved by the Administrator, you must operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

*D. What are the other requirements?*

As the owner or operator of a new or existing CISWI unit, you are required to meet the following additional requirements.

*Siting Analysis (new units only):*

• Submit a report that evaluates site-specific air pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.

*Waste Management Plan:*

• Submit a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream to reduce or eliminate toxic emissions from incinerated waste.

*Operator Training and Qualification Requirements:*

• Qualify operators or their supervisors (at least one per facility) by ensuring that they complete an operator training course and annual review or refresher course.

*Testing Requirements:*

• Conduct initial performance tests for cadmium, carbon monoxide, dioxins/furans, hydrogen chloride, lead, mercury, nitrogen oxides, opacity, particulate matter, and sulfur dioxide and establish operating limits (i.e., maximum or minimum values for operating parameters).

• Conduct annual performance tests for particulate matter and hydrogen chloride emissions and opacity. (An owner or operator may conduct less frequent testing if the facility demonstrates that it is in compliance with the emission limitations for 3 consecutive years.)

*Monitoring Requirements:*

• If using a wet scrubber to comply with the emission limitations, continuously monitor the following operating parameters: charge rate, pressure drop across the wet scrubber (or amperage), and scrubber liquid flow rate and pH.

• If something other than a wet scrubber is used to comply with the emission limitations, monitor other operating parameters, as approved by the Administrator.

• If using a fabric filter to comply with the emission limitations, in addition to monitoring other operating parameters as approved by the Administrator, you must install and operate a bag leak detection system with an alarm.

*Recordkeeping and Reporting Requirements:*

• Maintain for 5 years records of the initial performance tests and all subsequent performance tests, operating parameters, any maintenance, the siting analysis (for new units only), and operator training and qualification.

• Submit the results of the initial performance tests and all subsequent performance tests and values for the operating parameters.

*E. What Are the Requirements for Air Curtain Incinerators?*

The NSPS and EG establish opacity limitations for air curtain CISWI units burning:

- 100 percent wood wastes,
- 100 percent clean lumber, or
- 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The opacity limitation is 10 percent, except 35 percent opacity is allowed during startup periods that are within the first 30 minutes of operation.

## III. Significant Issues and Changes

A total of 95 comments letters were received during the public comment period for the proposed CISWI rule, which ended on January 31, 2000. Among the comments received, the most significant issues addressed applicability, the definition of solid waste, and the MACT floor approach and emission limitations. The issues are addressed below, and other issues raised in the comments are addressed in a comment and response document contained in the docket.

*A. Are very small municipal waste combustion units covered?*

Commenters questioned whether very small municipal waste combustion (MWC) units (*i.e.*, units that combust less than 35 tons (31.8 megragrams (Mg)) of municipal solid waste per day) are covered by the proposed NSPS and EG. We did not intend to cover very small MWC units, and the final NSPS and EG have been clarified to ensure they are not covered.

The intent of the NSPS and EG for CISWI units is to cover incinerators burning commercial and industrial solid waste, not combustors burning municipal solid waste.

*B. Are cyclonic barrel burners covered?*

Several commenters questioned whether cyclonic barrel burners are covered by the proposed NSPS and EG. We did not intend to cover cyclonic barrel burners, and the final NSPS and EG have been clarified to ensure they are not covered.

A cyclonic barrel burner is a portable device for burning materials that can be attached to a 55 gallon, open-head drum. The device consists of a lid that fits onto the drum and is connected to a blower that feeds combustion air to the drum in a cyclonic or swirling manner to enhance the combustion of the material. We were not aware of the small combustion devices when developing the proposed regulations, and, as a result, had no information on the devices. Information on cyclonic barrel burners is currently being gathered, and the devices will be evaluated separately from the CISWI category.

*C. Has the Definition of a CISWI Unit or Solid Waste Changed?*

Section 129(g)(1) and (6) create a specialized definition of "solid waste incineration unit" that depends in part on the definition of "solid waste" contained in section 1004(27) of the Resource Conservation and Recovery Act (RCRA). The overall intent of the CAA provisions is that section 129 rules are to apply to devices conventionally regarded as incinerators, that is, devices burning wastes in order to destroy the wastes. For purposes of promulgating regulations applicable to commercial and industrial solid waste incinerators, it is particularly important to distinguish between units that will be regulated as boilers as well as other devices whose primary purpose is energy recovery (such as process heaters), and devices that will be regulated as incinerators under section 129 of the CAA. The distinction is necessary to avoid dual regulation of the many combustion units in use at commercial and industrial facilities that function as energy recovery devices and may be subject to regulation under other sections of the CAA.

Our proposed definitions of solid waste and CISWI unit reflected this broad principle of distinguishing boilers and other energy recovery devices from incinerators. However, as explained below, our proposed definitions proved inadequate to distinguish boilers from incinerators within the category of sources. Therefore, in the final NSPS and EG, we have modified our definitions of solid waste and CISWI unit.

For purposes of this rule, we are adopting a revised definition of solid waste that reflects the definition in the Solid Waste Disposal Act (SWDA) and which is reiterated in the regulation promulgated by the Administrator pursuant to the SWDA. We emphasize that the definition is adopted solely for purposes of section 129 in order to implement the principles of that section. We note that the RCRA regulatory definition of solid waste, which effectively determines the scope of the regulatory program for hazardous wastes (since hazardous wastes are a subset of solid wastes (see RCRA section 1004(5)), defines secondary materials burned for energy recovery as solid wastes (40 CFR 261.2(c)(2)). The classification implements both an explicit directive in RCRA to regulate wastes burned for energy recovery (RCRA sections 3004(q), (r) and (s)), as well as the RCRA statutory definition of solid waste. See also *Horsehead Resource Development Corp.* v. *Browner*, 16 F. 3d 1246 (D.C. Cir. 1994) (upholding the rules implementing RCRA section 3004(q)). We reemphasize that the final CISWI NSPS and EG in no way affect those existing (and long-standing) RCRA provisions or reflect any type of Agency decision about the permissible scope of the RCRA statutory definition of solid waste. Our purpose here is only to adapt that definition to reflect the regulatory purpose of CAA section 129.

Many commenters stated that the definitions of solid waste and CISWI unit in the proposed NSPS and EG were too broad, and, therefore, would inappropriately cover some boilers, process heaters, and possibly other units that recover energy from the burning of fuels. The commenters stated their belief that commercial and industrial combustion units that recover energy were intended to be regulated under section 112 of the CAA, and that only incinerators that burn wastes for destruction alone were intended to be regulated as CISWI units.

The comments pointed to two primary reasons why the proposed NSPS and EG for CISWI units would inadvertently cover some units that recover energy, such as boilers and process heaters. First, many legitimate energy recovery units are physically separated from their associated energy recovery systems. The units would not meet the requirement that heat recovery must be part of a unit's "integral" design for it not to be considered a CISWI unit. Second, the universe of materials burned for energy recovery is much broader than those defined as "fuels." For example, several of today's combustion technologies and some new emerging technologies can burn materials for energy recovery having heat values less than the proposed 5,000 British thermal units per pound (Btu/lb) threshold for considering a material a fuel.

As a result, the commenters suggested that the NSPS and EG for CISWI units be changed so that units that recover energy not be considered incinerators. Without such a change, units could be regulated both as CISWI units under section 129 and as boilers, for example, under section 112. Such a potential overlap in regulations could create confusion as well as inconsistent and conflicting regulatory requirements, according to some commenters.

We agree that units physically separated from their associated energy recovery systems may be legitimate energy recovery devices. Therefore, we

have deleted from the final NSPS and EG the requirement for energy recovery to be part of the unit's "integral" design for it not to be considered a CISWI unit. Additionally, we have added a definition of energy recovery. Furthermore, we agree that several of today's combustion technologies, including some emerging technologies, may be capable of burning materials with a heat value of less than 5,000 Btu/lb to recover energy. Therefore, we have deleted the requirement from the definition of solid waste in the final NSPS and EG.

As we indicated in the preamble to the November 1999 proposal, the main purpose of the proposed definition of nonhazardous solid waste was to identify which materials when burned by CISWI units would be subject to regulations developed under section 129, and which materials when burned would be subject to regulations to be developed under section 112. Consideration of the above comments led us to conclude that the proposed definitions of "CISWI unit" and "solid waste" created the potential for overlap with rules we are developing under section 112, such as the boiler MACT.

The primary difference between incinerators and boilers is that incinerators burn materials for the purpose of disposal, whereas boilers burn materials for the purpose of recovering energy. Thus, we believe the concept of energy recovery is the key to distinguishing between CISWI units (which will be regulated under section 129) and boilers (which will be regulated under section 112). Specifically, commercial and industrial units burning materials without energy recovery are disposing of the materials, that is, they are treating such materials as commercial or industrial waste, and they should be regulated as CISWI units under section 129. In contrast, commercial and industrial units burning materials with energy recovery, that is, treating such materials as fuel, should be regulated under section 112.

In order to address the concerns raised by commenters, and to provide a clear distinction between CISWI units and combustion devices that will be covered by regulations promulgated under section 112 of the CAA, we have included in the final NSPS and EG a definition of "commercial and industrial waste." We define commercial and industrial waste as any solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

With the changes, we believe the final NSPS and EG will avoid the possibility of double coverage under section 129 and section 112.

*D. Which Elements of the Definition of Solid Waste Have Been Retained and Clarified?*

For additional clarity, the exemptions from the CISWI rules for units burning municipal solid waste, hospital/medical/infectious waste, and hazardous wastes under the RCRA have been retained and are now included in the applicability sections (§ 60.2020 of the NSPS; § 60.2555 of the EG). The solid waste definition refers to the exemptions from the CISWI NSPS and EG. In addition, the exemption for units that burn materials for the purpose of recovering their chemical constituents is now included in the applicability sections of the CISWI NSPS and EG. The exemption has also been expanded by increasing the list of units that burn materials for the purpose of recovering their chemical constituents. Owners or operators who believe their unit is not a CISWI unit may petition the Administrator to add their unit to the list.

Finally, one commenter stated that the definition of solid waste in 40 CFR part 261 applies to nonhazardous solid waste. Therefore, the commenter believes that EPA must use that definition and is not free to redefine solid waste for the purpose of section 129.

Section 129 does not define nonhazardous solid waste, but directs EPA to use the meaning of solid waste established by the Administrator pursuant to the SWDA. To develop and implement the hazardous waste regulatory program authorized by the SWDA, the Administrator adopted a definition of hazardous waste pursuant to the SWDA. It is true that 40 CFR part 261 defines solid waste; however, 40 CFR 261.1(b)(1) states explicitly that the definition is only for the purpose of materials that are hazardous wastes.

The Administrator has included in the final NSPS and EG the definition of solid waste from the SWDA and is establishing the definition jointly under the authority of the CAA and the SWDA. The purpose of the definition is solely to identify nonhazardous solid waste for the purpose of the CISWI regulations.

*E. Were Significant Issues Raised Regarding EPA's Approach to Setting the Proposed Standards and Guidelines, and Has EPA Made Any Changes?*

The significant comments received on EPA's approach to setting the standards and guidelines, and the changes that have been made in response to these comments, are discussed below.

1. What Is EPA's General Approach to Setting the MACT Floors?

One commenter stated that EPA's technology-based approach to determining the MACT floors is unlawful and that the resulting MACT floors do not reasonably reflect the actual performance of the best performing 12 percent of existing units or the expected performance of the best controlled similar unit. Moreover, the commenter stated that the "worst emission test result for any unit using a particular technology does not reasonably reflect the actual performance of the best performing unit." As a result, the commenter concluded that the MACT emission limitations are not as stringent as the CAA requires. Generally, we disagree with the commenter for the following reasons.

Section 129(a)(2) of the CAA specifies that the emission limitations for existing units shall not be less stringent than the average emission limitation achieved by the best performing 12 percent of units in the category, and for new units shall not be less stringent than the emission control that is achieved in practice by the best controlled similar unit. The emission limitation associated with the above criteria for a pollutant is referred to as the "MACT floor" for that pollutant. With respect to new units, EPA interprets "achieved in practice" to mean achieved under the worst foreseeable circumstances, consistent with *National Lime Ass'n* v. *EPA*, 627 F. 2d 416, 431 n.46 (DC Cir. 1980). Moreover, EPA views the phrase "best controlled similar source" as encompassing all units using the same control technology as the unit with the best observed performance, rather than just that unit itself. Consequently, the MACT floor for new units is based on the highest data point from a unit using the "best" technology, since such a value is a reasonable estimate of the performance of the "best controlled similar unit" under the worst foreseeable circumstances. The approach is reasonable because the most informative way to predict the worst reasonably foreseeable performance of the best controlled unit, with the available data, is to examine the

performance of other units that use the same control technology. In other words, EPA considers all units with the same control technology to be equally well controlled, and each unit with the best control technology is a "best controlled similar unit" even if the emissions test results from such units vary considerably.

As discussed at proposal, to determine the MACT floors for the pollutants listed in section 129 of the CAA, we examined our CISWI unit database to identify the various emission control technologies (including the absence of emission control technology) that were in use on CISWI units. We then ranked the technologies on a pollutant-by-pollutant basis in terms of their emission control performance capabilities. For example, wet scrubbers (and fabric filters in the case of particulate emissions) were ranked higher than other technologies because they are capable of greater emissions reductions.

Using the ranking of emission control technologies, we were able to identify for each pollutant the best performing CISWI units. Because comprehensive emission test data are not available for each of the best performing CISWI units, we were unable to identify the specific emission control performance achieved by each unit. As a result, we considered the best performing CISWI units which used the same emission control technology as equally well controlled.

We then examined the best performing 12 percent of CISWI units, as well as the best performing CISWI unit, to identify the emission control technology which represents the MACT floor for each pollutant for existing and new CISWI units. For existing units, this was accomplished by identifying the emission control technology used by the median of the best performing 12 percent of units (*i.e.*, the CISWI unit representing the 94th percentile). (Because technologies cannot be "averaged" in the same way that numbers are averaged, the average performance of the emission control technology used by the best performing 12 percent of units is best represented by the technology in the middle of the range of the best performing 12 percent of units, *i.e.*, the median.) Similarly, for new units, this was accomplished by identifying the emission control technology used by the best performing CISWI unit for each pollutant.

Using this approach, the emission control technology identified as representing the MACT floor for each pollutant was determined to be the same for both new and existing CISWI units. As discussed at proposal, the use of a wet scrubbing system, or other equivalent emission control technology (such as use of a fabric filter system for particulate matter control), is the emission control technology which represents the MACT floor for both existing and new CISWI units. The MACT floor can be identified, therefore, by determining the emission limitations which are achieved by wet scrubbing systems on CISWI units.

As a result, having identified the emission control technology which represents the MACT floor, it was then necessary to determine the emission limitations "achieved" by this emission control technology for each pollutant. This determination is not, as this one commenter appears to suggest, simply a matter of looking at the test results from a single CISWI unit or generating a numerical average of the test data from all CISWI units employing the MACT technology. Such an approach fails to consider the inherent and unavoidable variability associated with the incinerators in the CISWI category. Consequently, such an approach does not accurately identify the actual emissions performance of existing units that use the MACT technology, or the level of performance which is achievable by a CISWI unit operating with this emission control technology under the worst reasonably foreseeable circumstances.

Examining emission data from a number of CISWI units using the same emission control technology gives us the best picture of the actual performance and the performance capability of this technology. It enables us to take into consideration the inherent variability associated with the incinerators in the CISWI category, and it allows us to identify the emission limitations achieved in practice under the worst reasonably foreseeable circumstances.

There are between 4 and 14 emission tests available for CISWI units controlled by wet scrubbing systems for each pollutant (with the exception of dioxins/furans, mercury, and hydrogen chloride, where fewer tests are available). As expected, there is considerable variation among the emission values from the emission tests for each pollutant as a result of the unavoidable process and operational variability within CISWI units (*e.g.*, variations in waste combusted, incinerator design and operation, etc.). Because this variability occurs among all CISWI units and because there is no clear explanation for this variability, it is reasonable to expect that there will always be a variation in emissions among CISWI units controlled by wet scrubbing systems.

Another way to view this emission variability among CISWI units is to consider each emission test as a "snapshot" of actual performance taken at one moment in time. Taken together, the snapshots provide a picture of the unavoidable variation in emissions expected to occur and recur over time at every similarly controlled CISWI unit. Absent additional information, there is no reason to believe that any observed emission value (*i.e.*, the emission level measured during a test) from a CISWI unit controlled with wet scrubbing could be prevented from occurring at any other CISWI unit also controlled by wet scrubbing.

As a result, the most reasonable methodology for determining the performance of wet scrubbing systems on CISWI units (*i.e.*, the MACT floor) is to examine the emission values for all similarly controlled CISWI units (excluding any emission values from tests that did not represent a proper functioning CISWI unit or wet scrubbing system). Thus, for a given pollutant, the most reasonable estimate of the MACT floor emission limitation "achieved" by the best performing 12 percent of CISWI units (or the best performing CISWI unit) is represented by the highest emission value observed from a CISWI unit using wet scrubbing.

We adopted this approach to ensure that the MACT floor emission limitations represent, as accurately as possible, what the best performing 12 percent of existing units is actually achieving, and what the best performing CISWI unit can be reasonably expected to achieve. Despite the commenters objections, we continue to believe that this is the most appropriate methodology for evaluating the performance of units in the CISWI category, given the inherent and unavoidable variability in emissions among these units and the limited emissions data available. Therefore, we continue using this approach to determine the MACT floors.

2. Will EPA Allow Compliance on a Percent Reduction Basis?

Several commenters recommended that we include percent reduction requirements for some pollutants, as alternatives to the emission limitations, to accommodate the variability in emissions among CISWI units.

As outlined above, we believe the emission limitations in the final standards and guidelines reasonably incorporate the variability associated with CISWI units using wet scrubbing systems (which is the basis for MACT as well as the MACT floor). Thus, we do not believe that alternative percentage

reduction requirements are necessary or would serve to provide emission limitation alternatives more representative of the actual performance of CISWI units. For these reasons, EPA is not including percent reduction requirements in the final rule.

3. How did EPA Establish Emission Limitations for Dioxins/Furans, Mercury, and Hydrogen Chloride?

Some commenters stated that the emission test data upon which several of the MACT emission limitations were based at proposal were extremely limited and, as a result, the limitations are not necessarily achievable in practice because they may not be representative of actual CISWI unit performance. Several of the commenters suggested that we consider the use of emission data from rulemakings which establish standards for sources that utilize similar emission control equipment under conditions comparable to units in the CISWI category.

As discussed above, a number of emission tests from CISWI units were available to determine the MACT emission limitations for most pollutants. However, for three pollutants, dioxins/furans, mercury, and hydrogen chloride, there were only one or two emission tests from CISWI units. As we noted at proposal, such limited data may not provide a sufficient basis to establish MACT emission limitations for the pollutants in this category (particularly given the degree of variability among CISWI units). Consequently, we decided not to rely only on the emission tests to determine the MACT emission limitations for the three pollutants.

While the provisions of section 129 identify a general minimum stringency for MACT emission limitations, there is nothing about how MACT emission limitations are to be calculated, that is, the provisions do not identify a specific procedure or type of information that EPA must use. Thus, we generally have wide latitude in determining the extent of data gathering necessary to establish emission limitations. We believe it is appropriate to use any data available (such as emission test results, operating permit limitations, engineering calculations, control equipment specifications, or other reliable information) that provide information useful for generating a reasonable estimate of the performance of units within a category.

Accordingly, where the emission data from units within a category are incomplete, we may augment our analysis with supplementary information to determine MACT emission limitations. Provided that the augmented emission data we use to generate the MACT emission limitations provide a good proxy for the best performing units in the category, it is irrelevant that the actual test data available from units in the category are incomplete. Similarly, if our analysis provides a reasonable representation of the actual performance of units in the category, we may consider relevant supplemental information from any available source. Courts have ruled that EPA need not invest resources to conduct the perfect study, provided that our approach bears a rational relationship to the reality it purports to represent (See *Sierra Club* v. *EPA*, 167 F. 3d 658, 663 (D.C. Cir. 1999)).

Thus, because emission data for dioxins/furans, mercury, and hydrogen chloride emissions from CISWI units controlled by wet scrubbing systems are extremely limited, we have augmented the data with emission data from similarly controlled units outside of the CISWI category. This approach allows us to better characterize the actual dioxins/furans, mercury, and hydrogen chloride emission limitations achieved by units in the CISWI category by providing additional information regarding the performance of wet scrubbers under conditions similar to those experienced by CISWI units.

Hazardous waste incinerator (HWI) units without waste heat recovery that are controlled with wet scrubbing systems serve as a valuable source of supplementary data for emissions of dioxins/furans. (Units in the CISWI category that were used to establish the emission limitations did not incorporate waste heat recovery, and it is not the intent of this rulemaking to cover such units.) These types of HWI units are generally similar to CISWI units that are controlled by wet scrubbing systems. Thus, it is reasonable to conclude that the emissions performance of HWI units without waste heat boilers and controlled with wet scrubbing systems is comparable to that of CISWI units controlled with wet scrubbing systems.

As a result, we combined dioxins/furans emission data from HWI units without waste heat recovery boilers and controlled with wet scrubbing systems with the dioxins/furans emission data for CISWI units controlled with wet scrubbing systems. We then determined the MACT emission limitation for dioxins/furans as discussed above. The resulting emission limitation included in the final NSPS and EG is 0.41 nanograms per dry standard cubic meter (ng/dscm) toxic eqivalency (TEQ) (Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Notice of Data Availability, August 28, 2000, 65 FR 52058).

Unfortunately, with respect to the other two pollutants for which CISWI test data are extremely limited (mercury and hydrogen chloride), it is inappropriate to use emission data from HWI units to supplement the CISWI unit data. The mercury and hydrogen chloride emission data available from HWI units are based on the use of a different emission control technology than wet scrubbing systems, and this prevents us from combining mercury and hydrogen chloride emission data from HWI units with that from CISWI units. Since appropriate HWI data were not available, we identified another source of data to augment mercury and hydrogen chloride emission data from CISWI units controlled by wet scrubbing systems.

Hospital, medical, and infectious waste incinerator (HMIWI) units controlled with wet scrubbing systems serve as a valuable source of supplementary data for mercury and hydrogen chloride. Those HMIWI units are also generally similar to CISWI units that are controlled by wet scrubbing systems. Thus, it is reasonable to conclude that the mercury and hydrogen chloride emission performance achieved by HMIWI units controlled with wet scrubbing systems is comparable to that of CISWI units controlled with wet scrubbing systems.

As a result, we combined mercury and hydrogen chloride emission data from HMIWI units controlled with wet scrubbing systems with the mercury and hydrogen chloride emission data from CISWI units controlled with wet scrubbing systems. We then determined the emission limitations for mercury and hydrogen chloride as discussed above. The resulting emission limitations included in the final NSPS and EG are 0.47 mg/dscm for mercury and 62 parts per million by volume, dry basis (ppmdv) for hydrogen chloride (Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Notice of Data Availability, August 28, 2000, 65 FR 52058).

This process for augmenting the CISWI data with appropriate HWI or HMIWI data results in dioxins/furans, mercury, and hydrogen chloride emission limitations which more accurately represent the levels of such emissions actually achieved by CISWI units employing the MACT technology

(wet scrubbing systems). This approach to developing the emission limitations provides a reasonable proxy for the actual performance of the best performing CISWI units and is the most appropriate method, under the circumstances, for EPA to identify the emission limitations that are achieved by such units.

(Note: While we believe that emission data for dioxins/furans, mercury, and hydrogen chloride from the HWI and HMIWI categories are useful for augmenting the CISWI data where insufficient CISWI emission data are available, we do not believe that HWI, HMIWI, and CISWI units should generally be characterized as similar units for the purpose of determining MACT emission limitations for all CISWI pollutants.)

4. How did EPA Establish Emission Limitations for Lead and Cadmium?

In reviewing the CISWI database to address comments following proposal, we found that, despite our earlier efforts to rigorously screen the database, the unit responsible for the highest recorded emissions of lead and cadmium (which drove the MACT emission limitations for the pollutants) was not a CISWI unit. As a result, this unit was removed from the CISWI database, resulting in a change in the lead and cadmium MACT emission limitations. Following the methodology outlined above, the final MACT emission limitations included in the final NSPS and EG are 0.04 mg/dscm for lead and 0.004 mg/dscm for cadmium.

## IV. Impacts of the Final NSPS and EG

The air impacts of the NSPS and EG were reestimated as a result of revising the emission limitations for new and existing CISWI units. Because the estimates of water, solid waste, energy, cost, and economic impacts depend solely on the technology upon which the MACT limits are based, and because the technology remains the same as proposed, there were no changes in other impacts.

### *A. What Are the Air Impacts for New Units?*

To illustrate the potential emissions reductions achieved by the NSPS with respect to new CISWI units, we modeled hypothetical CISWI units with capacities of 100 and 1,500 pounds per hour (lb/hr) (45 and 680 kilograms per hour (kg/hr)) and estimated the impacts associated with application of wet scrubbers. The resulting impact estimates (i.e., the difference in emissions between a CISWI unit with a wet scrubber and an uncontrolled CISWI unit) are presented in Table 3 of this preamble.

TABLE 3.—EMISSIONS REDUCTIONS ON A MODEL UNIT BASIS

| Pollutant | Emissions Reduction, tons/yr (Mg/yr) | | | |
|---|---|---|---|---|
| | 100 lb/hr | | 1500 lb/hr | |
| | (45 kg/hr) | Capacity | (680 kg/hr) | Capacity |
| Cadmium | $1.5\times10^{-5}$ | $(1.4\times10^{-5})$ | $3.1\times10^{-4}$ | $(2.8\times10^{-4})$ |
| Dioxins/furans (TEQ) | $2.0\times10^{-9}$ | $(1.8\times10^{-9})$ | $4.2\times10^{-8}$ | $(3.9\times10^{-8})$ |
| Hydrogen chloride | 1.5 | (1.4) | 32.3 | (29.3) |
| Lead | $1.9\times10^{-4}$ | $(1.7\times10^{-4})$ | $4.0\times10^{-3}$ | $(3.6\times10^{-3})$ |
| Mercury | $6.5\times10^{-4}$ | $(5.9\times10^{-4})$ | 0.01 | (0.01) |
| Particulate matter | 0.50 | (0.45) | 10.8 | (9.8) |
| Sulfur dioxide | 0.38 | (0.35) | 7.9 | (7.2) |

### *B. What are the air impacts for existing units?*

Table 4 of this preamble summarizes the national air emission impacts of the EG. The impacts are expressed in two ways. First, the impacts are expressed as annual nationwide mass emissions reductions; and second, as percent reductions compared to current estimated national emissions for existing CISWI units.

TABLE 4.—EMISSIONS REDUCTIONS FOR EXISTING CISWI UNITS

| Pollutant | National Emissions Reduction | | Percent [1] |
|---|---|---|---|
| | Tons/yr | (Mg/yr) | |
| Cadmium | 0.01 | (0.01) | 56 |
| Dioxins/furans (TEQ) | $1.8\times10^{-6}$ | $(1.6\times10^{-6})$ | 65 |
| Hydrogen chloride | 1315 | (1193) | 89 |
| Lead | 0.15 | (0.14) | 62 |
| Mercury | 0.56 | (0.51) | 34 |
| Particulate matter | 409 | (371) | 71 |
| Sulfur dioxide | 324 | (294) | 72 |

[1] Percent reduction from current (baseline) emissions.

## V. Administrative Requirements

### *A. Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a regulatory action is "significant" and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified us that it considers this a "significant regulatory action" within the meaning of the Executive Order. As a result, we submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

Section 129 of the CAA requires EPA to adopt NSPS and EG for CISWI units. These NSPS and EG must be based on MACT, which is defined as the maximum degree of reduction in emissions of air pollutants, taking into consideration the cost of achieving the reductions and any nonair quality health and environmental impacts and energy requirements, that the Administrator determines is achievable. The MACT for the NSPS must be no less stringent than the emission reduction achieved by the best controlled source, and MACT for the EG must be no less stringent that the emission reduction achieved by the average of the best controlled 12 percent of sources. These minimum requirements are referred to as the floor, and more stringent requirements are referred to as beyond-the-floor.

To determine MACT, we examined two alternatives. The first reflected the floor (i.e., wet scrubbing); the second reflected a beyond-the-floor option (i.e., wet scrubbing followed by carbon injection and a fabric filter). Taking into consideration the cost of achieving the emission reductions and any nonair quality health and environmental impacts and energy requirements, the Administrator determined that the first alternative is MACT.

The total national annualized cost impact of this regulatory action is estimated as $11.6 million per year, assuming those CISWI units currently operating without wet scrubbers would install wet scrubbers in order to comply with the emission limits in the NSPS and EG. As a result, emissions (consisting primarily of hydrogen chloride, particulate matter, and sulfur dioxide) would be reduced by 2048 tons per year.

*B. Executive Order 13132: Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires us to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under section 6 of Executive Order 13132, we may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or we consult with State and local officials early in the process of developing the regulation. We also may not issue a regulation that has federalism implications and that preempts State law unless we consult with State and local officials early in the process of developing the proposed regulation.

If we comply by consulting, Executive Order 13132 requires us to provide to the OMB, in a separately identified section of the preamble to the rule, a federalism summary impact statement. The federalism summary impact statement must include a description of the extent of our prior consultation with State and local officials, a summary of the nature of their concerns and our position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. Also, when we transmit a draft final rule with federalism implications to OMB for review pursuant to Executive Order 12866, we must include a certification from the agency's federalism official stating that we have met the requirements of Executive Order 13132 in a meaningful and timely manner.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule establishes national performance standards and other requirements for certain solid waste incineration units. We are required by section 129 of the CAA, 42 U.S.C. 7429, to establish the standards and guidelines embodied in this rule. This regulation primarily affects private industry and does not impose significant economic costs on State or local governments. The standards established by this rule apply to new facilities that operate commercial or industrial incineration units (and the owners or operators of such facilities) and require States to submit State plans that include standards applicable to existing incineration units that are at least as protective as the standards specified in the rule. If a State does not submit an approvable plan, any covered incineration units in that State will become subject to a Federal plan to implement this rule. The regulation does not include an express provision preempting State or local regulations. However, once a State or Federal plan is in effect, covered facilities would be subject to the standards established by this rule, regardless of any less protective State or local regulations that contain emission limitations for the pollutants addressed by this rule. To the extent that this might preempt State or local regulations, it does not significantly affect the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Thus, the requirements of section 6 of the Executive Order do not apply to this rule; and we have complied with the requirements of section 4(e), to the extent that they may be applicable to the regulations, by providing notice to potentially affected State and local officials through publication of this rule.

Although section 6 of Executive Order 13132 does not apply to this rule, we consulted with representatives of State and local governments to enable them to provide meaningful and timely input into the development of this rule. This consultation took place during the ICCR FACA committee meetings, where members representing State and local governments participated in developing recommendations for our combustion-related rulemakings, including this rule. Additionally, we sponsored the Small Communities Outreach Project, which involved meetings with elected officials and other government representative to provide them with information about this rule and to solicit their comments. The concerns raised by representatives of State and local governments were considered during the development of this rule.

*C. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments*

Under Executive Order 13084, we may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance

costs incurred by the tribal governments, or we consult with those governments. If we comply by consulting, Executive Order 13084 requires us to provide to OMB, in a separately identified section of the preamble to the rule, a description of the extent of our prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires us to develop an effective process permitting elected officials and other representatives of Indian tribal governments to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.

Today's final rule does not significantly or uniquely affect the communities of Indian tribal governments. We know of no CISWI units owned by Indian tribal governments. However, if there are any, the effect of these rules on communities of tribal governments would not be unique or disproportionate to the effect on other communities. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply.

*D. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that we determine: (1) Is "economically significant" as defined under Executive Order 12866, (2) is based on health or safety risks, and (3) for which we have reason to believe may disproportionately affect children. If the regulatory action meets these criteria, we must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives we considered.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. Additionally, this final rule is not economically significant as defined by Executive Order 12866.

*E. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year.

Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted.

Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, thereby enabling officials of affected small governments to have meaningful and timely input in the development of the regulatory proposal with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Thus, this rule is not subject to the requirements of sections 202 and 205 of the UMRA. Additionally, we have determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

*F. Regulatory Flexibility Act (RFA) as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.*

The RFA generally requires Federal agencies to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include businesses, small not-for-profit enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, a small entity is defined as: (1) a small business who has less than 500 employees, (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000, and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. The SBA guidelines define a small business based on number of employees or annual revenues, and the size standards vary from industry to industry. Generally, businesses covered by the Standard Industry Codes (SIC) affected by this final rule are considered small if they have less than 500 employees or less than $5 million in annual sales.

The regulation will affect 112 existing facilities owned by 90 parent companies. Based on Small Business Administration guidelines, 26 of the companies are small businesses. The lumber and wood products industry includes the largest number (seven) of the small businesses, followed by fabricated metals, veterinary hospitals (burning less than 90 percent pathological waste), and wholesale trade sectors with three companies each. The remaining small businesses are distributed across six different industries. If add-on controls are employed to meet the standards, a total of 15 small businesses have cost-to-sales ratios greater than 1 percent; and of the 15 small businesses, 9 have cost-to-sales ratios that exceed 3 percent (ranging from 3.4 to 27.7 percent with a median of 4 percent). The nine entities with cost-to-sales ratios greater than three percent incinerate relatively small amounts of material. Therefore, it is reasonable to assume the businesses will seek an alternative method of disposal rather than bearing the cost of installing add-on equipment. Since the median amount of material incinerated by the nine companies is only about 50 tons per year, the alternative net cost for sending waste to a landfill for many of the facilities is expected to be less than the control costs, based on an estimated total alternative disposal cost (*i.e.*, transportation and storage costs plus tipping fee) of about $58 per ton. The cost of using an off-site landfill for the median amount of material is estimated to be about $2,900 per year. Thus, it

may be economically feasible for some of these small entities to switch to an alternative disposal method, such as off-site landfills, and lower their net compliance costs.

Based on the low number of affected small entities in each individual market, the alternative method of waste disposal available, and the relatively low control cost, this analysis suggests that the regulation should not generate a significant small business impact on a substantial number of small entities in the commercial and industrial sectors. EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. EPA has also determined that this rule wil not have a significant economic impact on a substantial number of small entities.

*G. Paperwork Reduction Act*

The information collection requirements in this final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) documents have been prepared (ICR No. 1926.02 for subpart CCCC and 1927.02 for subpart DDDD), and copies may be obtained from Sandy Farmer by mail at U.S. Environmental Protection Agency, Office of Environmental Information, Collection Strategies Division (2822), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by e-mail at farmer.sandy@epa.gov, or by calling (202) 260–2740. Copies may also be downloaded from the internet at *http://www.epa.gov/icr.*

The NSPS and EG contain monitoring, reporting, and recordkeeping requirements. The information will be used to identify new, modified, or reconstructed incineration units subject to the NSPS and to ensure that new incineration units undergo a siting analysis and that the analysis is reviewed by the public. Records and reports are necessary to enable us to identify waste incineration units that may not be in compliance with the requirements. Based on reported information, we would decide which units and what records or processes should be inspected.

These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to us for which a claim of confidentiality is made will be safeguarded according to our policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

The estimated average annual burden for the first 3 years after promulgation of the NSPS for industry and the implementing agency is outlined below.

| Affected entity | Total hours | Labor costs | Capital costs | O&M costs | Total costs |
|---|---|---|---|---|---|
| Industry | 11,209 | $685,269 | $13,440 | $1,266 | $699,975 |
| Implementing agency | 794 | $32,608 | 0 | 0 | $32,608 |

We expect the NSPS to affect 18 CISWI units over the first 3 years, based on the assumption that six existing units will be replaced by six new units each year. We estimate the total annualized capital and startup costs for these new units to be $13,440. Continuous parameter monitoring equipment would be required for new units. When a wet scrubber is used to meet the emission limitation, monitoring equipment must be installed to monitor maximum charge rate, minimum pressure drop across the wet scrubber (or minimum amperage), minimum scrubber liquor flow rate, and minimum scrubber liquor pH. The estimated total operation, maintenance, and purchase costs for the monitoring equipment averaged over the first 3 years are expected to be $1,266. The implementing agency would not incur any capital or startup costs.

The estimated average annual burden for the first 3 years after promulgation of the emission guidelines for industry and the implementing agency is outlined below.

| Affected entity | Total hours | Labor costs | Capital costs | O&M costs | Total costs |
|---|---|---|---|---|---|
| Industry | 9,145 | $407,067 | $0 | $0 | $407,067 |
| Implementing agency | 1,817 | $48,386 | 0 | 0 | $48,386 |

We expect the EG to affect a maximum of 116 units over the first 3 years. We assume that six existing units will be replaced by six new units each year. There are no capital, startup, or operation and maintenance costs for existing units during the first 3 years. The implementing agency would not incur any capital or startup costs.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for our regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

*H. National Technology Transfer and Advancement Act*

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law No. 104–113, section 12(d) (15 U.S.C. 272 note), directs us to use voluntary consensus standards in our regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs us to provide Congress, through OMB, explanations when we decide not to use available and applicable voluntary consensus standards.

Consistent with the NTTAA, we conducted searches to identify voluntary consensus standards for use in process and emissions monitoring.

The search for emissions monitoring procedures identified six voluntary consensus standards that appeared to have possible use in lieu of our standard reference methods. However, after reviewing available standards, we determined that these candidate consensus standards would not be practical due to the potential lack of equivalency, documentation, validation data and other important technical and policy considerations. These six candidate consensus standards are under development and we plan to follow, review and consider adopting them at a later date.

*I. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. We will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register.** A major rule cannot take effect until 60 days after it is published in the **Federal Register.** This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective January 30, 2001.

**List of Subjects in 40 CFR Part 60**

Environmental protection, Air pollution control, Carbon monoxide, Metals, Nitrogen dioxide, Particulate matter, Sulfur oxides, Waste treatment and disposal.

Dated: November 15, 2000.

**Carol M. Browner,**

*Administrator.*

For the reasons stated in the preamble, title 40, chapter I, part 60 of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, 7411, 7414, 7416, 7429, and 7601.

2. Part 60 is amended by adding subpart CCCC to read as follows:

## Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001.

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## Introduction

### § 60.2000 What does this subpart do?

This subpart establishes new source performance standards for commercial and industrial solid waste incineration (CISWI) units.

### § 60.2005 When does this subpart become effective?

This subpart takes effect on June 1, 2001. Some of the requirements in this subpart apply to planning the CISWI unit and must be completed even before construction is initiated on the CISWI unit (i.e., the preconstruction requirements in §§ 60.2045 and 60.2050). Other requirements such as the emission limitations and operating limits apply after the CISWI unit begins operation.

## Applicability

### § 60.2010 Does this subpart apply to my incineration unit?

Yes, if your incineration unit meets all the requirements specified in paragraphs (a) through (c) of this section.

(a) Your incineration unit is a new incineration unit as defined in § 60.2015.

(b) Your incineration unit is a CISWI unit as defined in § 60.2265.

(c) Your incineration unit is not exempt under § 60.2020.

### § 60.2015 What is a new incineration unit?

(a) A new incineration unit is an incineration unit that meets either of the two criteria specified in paragraph (a)(1) or (2) of this section.

(1) Commenced construction after November 30, 1999.

(2) Commenced reconstruction or modification on or after June 1, 2001.

(b) This subpart does not affect your incineration unit if you make physical or operational changes to your incineration unit primarily to comply with the emission guidelines in subpart DDDD of this part (Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units). Such changes do not qualify as reconstruction or modification under this subpart.

### § 60.2020 What combustion units are exempt from this subpart?

This subpart exempts fifteen types of units described in paragraphs (a) through (o) of this section.

(a) *Pathological waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2265 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) *Agricultural waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of agricultural wastes as defined in § 60.2265 are not subject to this subpart if you meet the two requirements specified in paragraphs (b)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

(c) *Municipal waste combustion units.* Incineration units that meet either of the two criteria specified in paragraph (c)(1) or (2) of this section.

(1) Are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors that are Constructed on or Before September 20, 1994); AAAA of this part (Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units).

(2) Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in subpart Ea, subpart Eb, subpart AAAA, and subpart BBBB of this part, and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Notify the Administrator that the unit meets these criteria.

(ii) Keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in the unit.

(d) *Medical waste incineration units.* Incineration units regulated under subpart Ec of this part (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ce of this part (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(e) *Small power production facilities.* Units that meet the three requirements specified in paragraphs (e)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit meets all of these criteria.

(f) *Cogeneration facilities.* Units that meet the three requirements specified in paragraphs (f)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit meets all of these criteria.

(g) *Hazardous waste combustion units.* Units that meet either of the two criteria specified in paragraph (g)(1) or (2) of this section.

(1) Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(2) Units regulated under subpart EEE of 40 CFR part 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(h) *Materials recovery units.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

(i) *Air curtain incinerators.* Air curtain incinerators that burn only the materials listed in paragraphs (i)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§§ 60.2245 through 60.2260).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.
(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.
(j) *Cyclonic barrel burners.* (See § 60.2265)
(k) *Rack, part, and drum reclamation units.* (See § 60.2265)
(l) *Cement kilns.* Kilns regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).
(m) *Sewage sludge incinerators.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).
(n) *Chemical recovery units.* Combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The seven types of units described in paragraphs (n)(1) through (7) of this section are considered chemical recovery units.
(1) Units burning only pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.
(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.
(3) Units burning only wood or coal feedstock for the production of charcoal.
(4) Units burning only manufacturing byproduct streams/residues containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.
(5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.
(6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.
(7) Units burning only photographic film to recover silver.
(o) *Laboratory Analysis Units.* Units that burn samples of materials for the purpose of chemical or physical analysis.

**§ 60.2025 What if my chemical recovery unit is not listed in § 60.2020(n)?**

(a) If your chemical recovery unit is not listed in § 60.2020(n), you can petition the Administrator to add your unit to the list. The petition must contain the six items in paragraphs (a)(1) through (6) of this section.
(1) A description of the source of the materials being burned.
(2) A description of the composition of the materials being burned, highlighting the chemical constituents in these materials that are recovered.
(3) A description (including a process flow diagram) of the process in which the materials are burned, highlighting the type, design, and operation of the equipment used in this process.
(4) A description (including a process flow diagram) of the chemical constituent recovery process, highlighting the type, design, and operation of the equipment used in this process.
(5) A description of the commercial markets for the recovered chemical constituents and their use.
(6) The composition of the recovered chemical constituents and the composition of these chemical constituents as they are bought and sold in commercial markets.
(b) Until the Administrator approves your petition, the incineration unit is covered by this subpart.
(c) If a petition is approved, the Administrator will amend § 60.2020(n) to add the unit to the list of chemical recovery units.

**§ 60.2030 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.
(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.
(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (7) of this section.
(1) Approval of alternatives to the emission limitations in Table 1 of this subpart and operating limits established under § 60.2110.
(2) Approval of major alternatives to test methods.
(3) Approval of major alternatives to monitoring.
(4) Approval of major alternatives to recordkeeping and reporting.
(5) The requirements in § 60.2025.
(6) The requirements in § 60.2115.
(7) The requirements in § 60.2100(b)(2).

**§ 60.2035 How are these new source performance standards structured?**

These new source performance standards contain the eleven major components listed in paragraphs (a) through (k) of this section.
(a) Preconstruction siting analysis.
(b) Waste management plan.
(c) Operator training and qualification.
(d) Emission limitations and operating limits.
(e) Performance testing.
(f) Initial compliance requirements.
(g) Continuous compliance requirements.
(h) Monitoring.
(i) Recordkeeping and reporting.
(j) Definitions.
(k) Tables.

**§ 60.2040 Do all eleven components of these new source performance standards apply at the same time?**

No. You must meet the preconstruction siting analysis and waste management plan requirements before you commence construction of the CISWI unit. The operator training and qualification, emission limitations, operating limits, performance testing and compliance, monitoring, and most recordkeeping and reporting requirements are met after the CISWI unit begins operation.

**Preconstruction Siting Analysis**

**§ 60.2045 Who must prepare a siting analysis?**

(a) You must prepare a siting analysis if you plan to commence construction of a CISWI unit after December 1, 2000.
(b) You must prepare a siting analysis if you are required to submit an initial application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable, for the reconstruction or modification of your CISWI unit.

**§ 60.2050 What is a siting analysis?**

(a) The siting analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, the analysis may consider costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.
(b) Analyses of your CISWI unit's impacts that are prepared to comply with State, local, or other Federal regulatory requirements may be used to

satisfy the requirements of this section, provided they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) You must complete and submit the siting requirements of this section as required under § 60.2190(c) prior to commencing construction.

### Waste Management Plan

#### § 60.2055 What is a waste management plan?

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

#### § 60.2060 When must I submit my waste management plan?

You must submit a waste management plan prior to commencing construction.

#### § 60.2065 What should I include in my waste management plan?

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures and implement those measures the source considers practical and feasible, considering the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

### Operator Training and Qualification

#### § 60.2070 What are the operator training and qualification requirements?

(a) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you must follow the procedures in § 60.2100.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section.

(1) Training on the eleven subjects listed in paragraphs (c)(1)(i) through (xi) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to correct malfunctions or conditions that may lead to malfunction.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(xi) Waste management practices.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

#### § 60.2075 When must the operator training course be completed?

The operator training course must be completed by the later of the three dates specified in paragraphs (a) through (c) of this section.

(a) Six months after your CISWI unit startup.

(b) December 3, 2001.

(c) The date before an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

#### § 60.2080 How do I obtain my operator qualification?

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2070(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2070(c)(2).

#### § 60.2085 How do I maintain my operator qualification?

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(c) Inspection and maintenance.

(d) Responses to malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

#### § 60.2090 How do I renew my lapsed operator qualification?

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.2085.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2080(a).

#### § 60.2095 What site-specific documentation is required?

(a) Documentation must be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in paragraphs (a)(1) through (10) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this subpart.

(2) Procedures for receiving, handling, and charging waste.

(3) Incinerator startup, shutdown, and malfunction procedures.

(4) Procedures for maintaining proper combustion air supply levels.

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(6) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§ 60.2055 through 60.2065.

(9) Procedures for handling ash.

(10) A list of the wastes burned during the performance test.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted within

6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the CISWI unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted not later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (c)(1) through (3) of this section.

(1) Records showing the names of CISWI unit operators who have completed review of the information in § 60.2095(a) as required by § 60.2095(b), including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2070, met the criteria for qualification under § 60.2080, and maintained or renewed their qualification under § 60.2085 or § 60.2090. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

#### § 60.2100 What if all the qualified operators are temporarily not accessible?

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the two criteria specified in paragraphs (a) and (b) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in § 60.2095(a) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under § 60.2210.

(b) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (b)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to the Administrator every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from the Administrator to continue operation of the CISWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (b)(1) of this section. If the Administrator notifies you that your request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.2070(a).

(ii) You notify the Administrator that a qualified operator is accessible and that you are resuming operation.

### Emission Limitations and Operating Limits

#### § 60.2105 What emission limitations must I meet and by when?

You must meet the emission limitations specified in Table 1 of this subpart 60 days after your CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

#### § 60.2110 What operating limits must I meet and by when?

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 2 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraph (a)(1)(i) or (ii), as appropriate.

(i) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.

(b) You must meet the operating limits established during the initial performance test 60 days after your CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

(c) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by you to initiate corrective action.

#### § 60.2115 What if I do not use a wet scrubber to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber, or limit emissions in some other manner, to comply with the emission limitations under § 60.2105, you must petition the Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as additional operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(d) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

**§ 60.2120 What happens during periods of startup, shutdown, and malfunction?**

(a) The emission limitations and operating limits apply at all times except during CISWI unit startups, shutdowns, or malfunctions.

(b) Each malfunction must last no longer than 3 hours.

### Performance Testing

**§ 60.2125 How do I conduct the initial and annual performance test?**

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) You must document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in § 60.2175(b)(1)) and the types of waste burned during the performance test.

(c) All performance tests must be conducted using the minimum run duration specified in Table 1 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 of this section:

$$C_{adj} = C_{meas} (20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen;

$C_{meas}$ = pollutant concentration measured on a dry basis;

(20.9–7) = 20.9 percent oxygen – 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

(g) You must determine dioxins/furans toxic equivalency by following the procedures in paragraphs (g)(1) through (3) of this section.

(1) Measure the concentration of each dioxin/furan tetra-through octachlorinated-congener emitted using EPA Method 23.

(2) For each dioxin/furan (tetra-through octachlorinated) congener measured in accordance with paragraph (g)(1) of this section, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 of this subpart.

(3) Sum the products calculated in accordance with paragraph (g)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

**§ 60.2130 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 1 of this subpart.

### Initial Compliance Requirements

**§ 60.2135 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

You must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in Table 1 of this subpart and to establish operating limits using the procedure in § 60.2110 or § 60.2115. The initial performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in § 60.2125.

**§ 60.2140 By what date must I conduct the initial performance test?**

The initial performance test must be conducted within 60 days after your CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

### Continuous Compliance Requirements

**§ 60.2145 How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, and opacity for each CISWI unit as required under § 60.8 to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in § 60.2125.

(b) You must continuously monitor the operating parameters specified in § 60.2110 or established under § 60.2115. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2115. Operating limits do not apply during performance tests.

(c) You must only burn the same types of waste used to establish operating limits during the performance test.

**§ 60.2150 By what date must I conduct the annual performance test?**

You must conduct annual performance tests for particulate matter, hydrogen chloride, and opacity within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

**§ 60.2155 May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least 3 years, and all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the 3rd year and no more than 36 months following the previous performance test.

(b) If your CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, you may choose to conduct performance tests for these pollutants every 3rd year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

**§ 60.2160 May I conduct a repeat performance test to establish new operating limits?**

(a) Yes. You may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

(b) You must repeat the performance test if your feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

### Monitoring

**§ 60.2165 What monitoring equipment must I install and what parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitation under § 60.2105, you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 2 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 2 of this subpart at all times except as specified in § 60.2170(a).

(b) If you use a fabric filter to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (b)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) If you are using something other than a wet scrubber to comply with the emission limitations under § 60.2105, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.2115.

**§ 60.2170 Is there a minimum amount of monitoring data I must obtain?**

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the CISWI unit is operating.

(b) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

### Recordkeeping and Reporting

**§ 60.2175 What records must I keep?**

You must maintain the fourteen items (as applicable) as specified in paragraphs (a) through (n) of this section for a period of at least 5 years:

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (6) of this section:

(1) The CISWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For affected CISWI units that establish operating limits for controls other than wet scrubbers under § 60.2115, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(6) If a fabric filter is used to comply with the emission limitations, you must record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.2110(c).

(c) Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 2 of this subpart or a deviation from other operating limits established under § 60.2115 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

(g) All documentation produced as a result of the siting requirements of §§ 60.2045 and 60.2050.

(h) Records showing the names of CISWI unit operators who have completed review of the information in § 60.2095(a) as required by § 60.2095(b), including the date of the initial review and all subsequent annual reviews.

(i) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2070, met the criteria for qualification under § 60.2080, and maintained or renewed their qualification under § 60.2085 or § 60.2090. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(j) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(k) Records of calibration of any monitoring devices as required under § 60.2165.

(l) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(m) The information listed in § 60.2095(a).

(n) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

**§ 60.2180 Where and in what format must I keep my records?**

All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

**§ 60.2185 What reports must I submit?**

See Table 4 of this subpart for a summary of the reporting requirements.

**§ 60.2190 What must I submit prior to commencing construction?**

You must submit a notification prior to commencing construction that includes the five items listed in paragraphs (a) through (e) of this section.

(a) A statement of intent to construct.

(b) The anticipated date of commencement of construction.

(c) All documentation produced as a result of the siting requirements of § 60.2050.

(d) The waste management plan as specified in §§ 60.2055 through 60.2065.

(e) Anticipated date of initial startup.

**§ 60.2195 What information must I submit prior to initial startup?**

You must submit the information specified in paragraphs (a) through (e) of this section prior to initial startup.

(a) The type(s) of waste to be burned.

(b) The maximum design waste burning capacity.

(c) The anticipated maximum charge rate.

(d) If applicable, the petition for site-specific operating limits under § 60.2115.

(e) The anticipated date of initial startup.

**§ 60.2200 What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (a) through (c) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.2135, as applicable.

(b) The values for the site-specific operating limits established in § 60.2110 or § 60.2115.

(c) If you are using a fabric filter to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.2165(b).

**§ 60.2205 When must I submit my annual report?**

You must submit an annual report no later than 12 months following the submission of the information in § 60.2200. You must submit subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under title V of the Clean Air Act, you may be required by the permit to submit these reports more frequently.)

**§ 60.2210 What information must I include in my annual report?**

The annual report required under § 60.2205 must include the ten items listed in paragraphs (a) through (j) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2215, 60.2220, and 60.2225.

(a) Company name and address.

(b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.2110 or § 60.2115.

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) Information recorded under § 60.2175(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.2155(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2155(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

**§ 60.2215 What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this subpart, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

**§ 60.2220 What must I include in the deviation report?**

In each report required under § 60.2215, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this subpart, include the six items described in paragraphs (a) through (f) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

**§ 60.2225 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from the Administrator to continue operation of the CISWI unit.

(b) If your unit was shut down by the Administrator, under the provisions of § 60.2100(b)(2), due to a failure to provide an accessible qualified operator, you must notify the Administrator that you are resuming operation once a qualified operator is accessible.

**§ 60.2230 Are there any other notifications or reports that I must submit?**

Yes. You must submit notifications as provided by § 60.7.

**§ 60.2235 In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

**§ 60.2240 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

## Title V Operating Permits

**§ 60.2242 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes. Each CISWI unit must operate pursuant to a permit issued under section 129(e) and title V of the Clean Air Act by the later of the two dates in paragraphs (a) and (b) of this section.

(a) Thirty-six months after December 1, 2000.

(b) The effective date of the title V permit program to which your unit is subject. If your unit is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, being a major source), then your unit may be required to apply for and obtain a title V permit prior to the deadlines noted above. If more than one requirement triggers the requirement to apply for a title V permit, the 12-month timeframe for filing a title V application is triggered by the requirement which first causes the source to be subject to title V.

## Air Curtain Incinerators

**§ 60.2245 What is an air curtain incinerator?**

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§§ 60.2245 through 60.2260).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

**§ 60.2250 What are the emission limitations for air curtain incinerators?**

(a) Within 60 days after your air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, you must meet the two limitations specified in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Except during malfunctions, the requirements of this subpart apply at all times, and each malfunction must not exceed 3 hours.

**§ 60.2255 How must I monitor opacity for air curtain incinerators?**

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in § 60.8.

(c) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of your previous test.

**§ 60.2260 What are the recordkeeping and reporting requirements for air curtain incinerators?**

(a) Prior to commencing construction on your air curtain incinerator, submit the three items described in paragraphs (a)(1) through (3) of this section.

(1) Notification of your intent to construct the air curtain incinerators.

(2) Your planned initial startup date.

(3) Types of materials you plan to burn in your air curtain incinerator.

(b) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the Administrator approves another format, for at least 5 years.

(c) Make all records available for submittal to the Administrator or for an inspector's onsite review.

(d) You must submit the results (each 6-minute average) of the initial opacity tests no later than 60 days following the initial test. Submit annual opacity test results within 12 months following the previous report.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(f) Keep a copy of the initial and annual reports onsite for a period of 5 years.

## Definitions

**§ 60.2265 What definitions must I know?**

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

*Administrator* means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or Administrator of a State Air Pollution Control Agency.

*Agricultural waste* means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and

floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

*Bag leak detection system* means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion device that combusts commercial and industrial waste, as defined in this subpart. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber.

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

*Commercial and industrial waste* means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Cyclonic barrel burner* means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air.

*Deviation means* any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

*Dioxins/furans* means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Discard* means, for purposes of this subpart and 40 CFR part 60, subpart DDDD, only, burned in an incineration unit without energy recovery.

*Drum reclamation unit* means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

*Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

*Modification* or *modified CISWI unit* means a CISWI unit you have changed later than June 1, 2001 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

*Part reclamation unit* means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

*Particulate matter* means total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Rack reclamation unit* means a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.

*Reconstruction* means rebuilding a CISWI unit and meeting two criteria:

(1) The reconstruction begins on or after June 1, 2001.

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit

used to calculate these costs, see the definition of CISWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber.

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this subpart and 40 CFR part 60, subpart DDDD, only, solid waste does not include the waste burned in the fifteen types of units described in § 60.2020.

*Standard conditions,* when referring to units of measure, means a temperature of 68°F (20°C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the unit.

*Wet scrubber* means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation, or demolition wastes.

(3) Clean lumber.

TABLE 1 TO SUBPART CCCC—EMISSION LIMITATIONS

| For the air pollutant | You must meet this emission limitation [a] | Using this averaging time | And determining compliance using this method |
|---|---|---|---|
| Dioxins/furans (toxic equivalency basis). | 0.41 nanograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 23 of Appendix A of this part). |
| Hydrogen chloride | 62 parts per million by dry volume | 3-run average (1 hour volume minimum sample time per run). | Performance test (Method 26A of appendix A of this part). |
| Lead | 0.04 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of appendix A of this part). |
| Mercury | 0.47 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of appendix A of this part). |
| Opacity | 10 percent | 6-minute averages | Performance test (Method 9 of appendix A of this part). |
| Oxides of nitrogen | 388 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 7, 7A, 7C, 7D, or 7E of appendix A of this part) |
| Particulate matter | 70 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 5 or 29 of appendix A of this part). |
| Sulfur dioxide | 20 parts per million by dry volume | 3-run average (1 hour volume minimum sample time per run). | Performance test (Method 6 or 6c of appendix A of this part). |

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

TABLE 2 TO SUBPART CCCC—OPERATING LIMITS FOR WET SCRUBBERS

| For these operating parameters | You must establish these operating limits | And monitoring using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording | Averaging time |
| Charge rate | Maximum charge rate | Continuous | Every hour | Daily (batch units) 3-hour rolling (continuous and intermittent units) [a] |
| Pressure drop across the wet scrubber or amperage to wet scrubber. | Minimum pressure drop or amperage. | Continuous | Every 15 minutes | 3-hour rolling [a] |
| Scrubber liquor flow rate | Minimum flow rate | Continuous | Every 15 minutes | 3-hour rolling [a] |
| Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | 3-hour rolling [a] |

[a] Calculated each hour as the average of the previous 3 operating hours.

TABLE 3 TO SUBPART CCCC—TOXIC EQUIVALENCY FACTORS

| Dioxin/furan congener | Toxic equivalency factor |
|---|---|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

TABLE 4 TO SUBPART CCCC—SUMMARY OF REPORTING REQUIREMENTS[a]

| Report | Due date | Contents | Reference |
|---|---|---|---|
| Preconstruction report | Prior to commencing construction | • Statement of intent to construct<br>• Anticipated date of commencement of construction<br>• Documentation for siting requirements<br>• Waste management plan<br>• Anticipated date of initial startup | § 60.2190 |
| Startup notification | Prior to initial startup | • Type of waste to be burned<br>• Maximum design waste burning capacity<br>• Anticipated maximum charge rate<br>• If applicable, the petition for site-specific operating limits | § 60.2195 |
| Initial test report | No later than 60 days following the initial performance test | • Complete test report for the initial performance test<br>• The values for the site-specific operating limits<br>• Installation of bag leak detection system for fabric filter | § 60.2200 |
| Annual report | No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report. | • Name and address<br>• Statement and signature by responsible official<br>• Date of report<br>• Values for the operating limits<br>• If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period<br>• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported<br>• Information for deviations or malfunctions recorded under § 60.2175(b)(6) and (c) through (e)<br>• If a performance test was conducted during the reporting period, the results of the test<br>• If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2155(a) or (b) were met<br>• Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks | §§ 60.2205 and 60.2210 |

TABLE 4 TO SUBPART CCCC—SUMMARY OF REPORTING REQUIREMENTS [a]—Continued

| Report | Due date | Contents | Reference |
|---|---|---|---|
| Emission limitation or operating limit deviation report. | By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year. | • Dates and times of deviation<br>• Averaged and recorded data for those dates<br>• Duration and causes of each deviation and the corrective actions taken<br>• Copy of operating limit monitoring data and any test reports<br>• Dates, times, and causes for monitor downtime incidents<br>• Whether each deviation occurred during a period of startup, shutdown, or malfunction | § 60.2215 and 60.2220 |
| Qualified operator deviation notification. | Within 10 days of deviation | • Statement of cause of deviation<br>• Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible | § 60.2225(a)(1) |
| Qualified operator deviation status report. | Every 4 weeks following deviation | • Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible<br>• Request for approval to continue operation | § 60.2225(a)(2) |
| Qualified operator deviation notification of resumed operation. | Prior to resuming operation | • Notification that you are resuming operation | § 60.2225(b) |

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.

3. Part 60 is amended by adding subpart DDDD to read as follows:

## Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999

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## Introduction

### § 60.2500 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration (CISWI) units. The pollutants addressed by these emission guidelines are listed in Table 2 of this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part.

### § 60.2505 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a State or United States protectorate with one or more existing CISWI units that commenced construction on or before November 30, 1999, you must submit a State plan to U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the State plan to EPA by December 3, 2001.

### § 60.2510 Is a State plan required for all States?

No. You are not required to submit a State plan if there are no existing CISWI units in your State, and you submit a negative declaration letter in place of the State plan.

### § 60.2515 What must I include in my State plan?

(a) You must include the nine items described in paragraphs (a)(1) through (9) of this section in your State plan.

(1) Inventory of affected CISWI units, including those that have ceased operation but have not been dismantled.

(2) Inventory of emissions from affected CISWI units in your State.

(3) Compliance schedules for each affected CISWI unit.

(4) Emission limitations, operator training and qualification requirements, a waste management plan, and operating limits for affected CISWI units that are at least as protective as the emission guidelines contained in this subpart.

(5) Performance testing, recordkeeping, and reporting requirements.

(6) Certification that the hearing on the State plan was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission.

(7) Provision for State progress reports to EPA.

(8) Identification of enforceable State mechanisms that you selected for implementing the emission guidelines of this subpart.

(9) Demonstration of your State's legal authority to carry out the sections 111(d) and 129 State plan.

(b) Your State plan may deviate from the format and content of the emission guidelines contained in this subpart. However, if your State plan does deviate in content, you must demonstrate that your State plan is at least as protective as the emission guidelines contained in this subpart. Your State plan must address regulatory applicability, increments of progress for retrofit, operator training and qualification, a waste management plan, emission limitations, performance testing, operating limits, monitoring, recordkeeping and reporting, and air curtain incinerator requirements.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of State Plans for Designated Facilities) in your State plan.

### § 60.2520 Is there an approval process for my State plan?

Yes. The EPA will review your State plan according to § 60.27.

### § 60.2525 What if my State plan is not approvable?

If you do not submit an approvable State plan (or a negative declaration letter) by December 2, 2002, EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWI units not covered by an approved State plan must comply with the Federal plan. The Federal plan is an interim action and will be automatically withdrawn when your State plan is approved.

### § 60.2530 Is there an approval process for a negative declaration letter?

No. The EPA has no formal review process for negative declaration letters. Once your negative declaration letter has been received, EPA will place a

copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, an existing CISWI unit is found in your State, the Federal plan implementing the emission guidelines contained in this subpart would automatically apply to that CISWI unit until your State plan is approved.

**§ 60.2535 What compliance schedule must I include in my State plan?**

(a) Your State plan must include compliance schedules that require CISWI units to achieve final compliance as expeditiously as practicable after approval of the State plan but not later than the earlier of the two dates specified in paragraphs (a)(1) and (2) of this section.

(1) December 1, 2005.

(2) Three years after the effective date of State plan approval.

(b) For compliance schedules more than 1 year following the effective date of State plan approval, State plans must include dates for enforceable increments of progress as specified in § 60.2580.

**§ 60.2540 Are there any State plan requirements for this subpart that apply instead of the requirements specified in subpart B?**

Yes. Subpart B establishes general requirements for developing and processing section 111(d) plans. This subpart applies instead of the requirements in subpart B of this part for paragraphs (a) and (b) of this section:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all CISWI units to comply by December 1, 2005 or 3 years after the effective date of State plan approval, whichever is sooner. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

(b) State plans developed to implement this subpart are required to include two increments of progress for the affected CISWI units. These two minimum increments are the final control plan submittal date and final compliance date in § 60.21(h)(1) and (5). This applies instead of the requirement of § 60.24(e)(1) that would require a State plan to include all five increments of progress for all CISWI units.

**§ 60.2545 Does this subpart directly affect CISWI unit owners and operators in my State?**

(a) No. This subpart does not directly affect CISWI unit owners and operators in your State. However, CISWI unit owners and operators must comply with the State plan you develop to implement the emission guidelines contained in this subpart. States may choose to incorporate the model rule text directly in their State plan.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by December 2, 2002, the EPA will implement and enforce a Federal plan, as provided in § 60.2525, to ensure that each unit within your State reaches compliance with all the provisions of this subpart by December 1, 2005.

## Applicability of State Plans

**§ 60.2550 What CISWI units must I address in my State plan?**

(a) Your State plan must address incineration units that meet all three criteria described in paragraphs (a)(1) through (3) of this section.

(1) Incineration units in your State that commenced construction on or before November 30, 1999.

(2) Incineration units that meet the definition of a CISWI unit as defined in § 60.2875.

(3) Incineration units not exempt under § 60.2555.

(b) If the owner or operator of a CISWI unit makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to subpart CCCC of this part and the State plan no longer applies to that unit.

(c) If the owner or operator of a CISWI unit makes physical or operational changes to an existing CISWI unit primarily to comply with your State plan, subpart CCCC of this part does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart CCCC of this part.

**§ 60.2555 What combustion units are exempt from my State plan?**

This subpart exempts fifteen types of units described in paragraphs (a) through (o) of this section.

(a) *Pathological waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2875 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) *Agricultural waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of agricultural wastes as defined in § 60.2875 are not subject to this subpart if you meet the two requirements specified in paragraphs (b)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

(c) *Municipal waste combustion units.* Incineration units that meet either of the two criteria specified in paragraphs (c)(1) or (2) of this section.

(1) Are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors that are Constructed on or Before September 20, 1994); subpart AAAA of this part (Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units).

(2) Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in subpart Ea, subpart Eb, subpart AAAA, and subpart BBBB, and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Notify the Administrator that the unit meets these criteria.

(ii) Keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in the unit.

(d) *Medical waste incineration units.* Incineration units regulated under subpart Ec of this part (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ca of this part (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(e) *Small power production facilities.* Units that meet the three requirements

specified in paragraphs (e)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit meets all of these criteria.

(f) *Cogeneration facilities.* Units that meet the three requirements specified in paragraphs (f)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit meets all of these criteria.

(g) *Hazardous waste combustion units.* Units that meet either of the two criteria specified in paragraph (g)(1) or (2) of this section.

(1) Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(2) Units regulated under subpart EEE of 40 CFR part 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(h) *Materials recovery units.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

(i) *Air curtain incinerators.* Air curtain incinerators that burn only the materials listed in paragraphs (i)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§§ 60.2810 through 60.2870).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

(j) *Cyclonic barrel burners.* (See § 60.2875)

(k) *Rack, part, and drum reclamation units.* (See § 60.2875)

(l) *Cement kilns.* Kilns regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(m) *Sewage sludge incinerators.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).

(n) *Chemical recovery units.* Combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The seven types of units described in paragraphs (n)(1) through (7) of this section are considered chemical recovery units.

(1) Units burning only pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(3) Units burning only wood or coal feedstock for the production of charcoal.

(4) Units burning only manufacturing byproduct streams/residues containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.

(5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

(6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.

(7) Units burning only photographic film to recover silver.

(o) *Laboratory analysis units.* Units that burn samples of materials for the purpose of chemical or physical analysis.

#### § 60.2558 What if a chemical recovery unit is not listed in § 60.2555(n)?

(a) If a chemical recovery unit is not listed in § 60.2555(n), the owner or operator of the unit can petition the Administrator to add the unit to the list. The petition must contain the six items in paragraphs (a)(1) through (6) of this section.

(1) A description of the source of the materials being burned.

(2) A description of the composition of the materials being burned, highlighting the chemical constituents in these materials that are recovered.

(3) A description (including a process flow diagram) of the process in which the materials are burned, highlighting the type, design, and operation of the equipment used in this process.

(4) A description (including a process flow diagram) of the chemical constituent recovery process, highlighting the type, design, and operation of the equipment used in this process.

(5) A description of the commercial markets for the recovered chemical constituents and their use.

(6) The composition of the recovered chemical constituents and the composition of these chemical constituents as they are bought and sold in commercial markets.

(b) Until the Administrator approves the petition, the incineration unit is covered by this subpart.

(c) If a petition is approved, the Administrator will amend § 60.2555(n) to add the unit to the list of chemical recovery units.

### Use of Model Rule

#### § 60.2560 What is the "model rule" in this subpart?

(a) The model rule is the portion of these emission guidelines (§§ 60.2575 through 60.2875) that addresses the regulatory requirements applicable to CISWI units. The model rule provides these requirements in regulation format. You must develop a State plan that is at least as protective as the model rule. You may use the model rule language as part of your State plan. Alternative language may be used in your State plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the model rule of §§ 60.2575 to 60.2875, "you" means the owner or operator of a CISWI unit.

#### § 60.2565 How does the model rule relate to the required elements of my State plan?

Use the model rule to satisfy the State plan requirements specified in § 60.2515(a)(4) and (5).

#### § 60.2570 What are the principal components of the model rule?

The model rule contains the eleven major components listed in paragraphs (a) through (k) of this section.

(a) Increments of progress toward compliance.

(b) Waste management plan.

(c) Operator training and qualification.

(d) Emission limitations and operating limits.

(e) Performance testing.

(f) Initial compliance requirements.

(g) Continuous compliance requirements.

(h) Monitoring.

(i) Recordkeeping and reporting.

(j) Definitions.

(k) Tables.

### Model Rule—Increments of Progress

#### § 60.2575 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of State plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section.

(a) Submit a final control plan.
(b) Achieve final compliance.

**§ 60.2580 When must I complete each increment of progress?**

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

**§ 60.2585 What must I include in the notifications of achievement of increments of progress?**

Your notification of achievement of increments of progress must include the three items specified in paragraphs (a) through (c) of this section.

(a) Notification that the increment of progress has been achieved.

(b) Any items required to be submitted with each increment of progress.

(c) Signature of the owner or operator of the CISWI unit.

**§ 60.2590 When must I submit the notifications of achievement of increments of progress?**

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

**§ 60.2595 What if I do not meet an increment of progress?**

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in Table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

**§ 60.2600 How do I comply with the increment of progress for submittal of a control plan?**

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section.

(a) Submit the final control plan that includes the five items described in paragraphs (a)(1) through (5) of this section.

(1) A description of the devices for air pollution control and process changes that you will use to comply with the emission limitations and other requirements of this subpart.

(2) The type(s) of waste to be burned.

(3) The maximum design waste burning capacity.

(4) The anticipated maximum charge rate.

(5) If applicable, the petition for site-specific operating limits under § 60.2680.

(b) Maintain an onsite copy of the final control plan.

**§ 60.2605 How do I comply with the increment of progress for achieving final compliance?**

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected CISWI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

**§ 60.2610 What must I do if I close my CISWI unit and then restart it?**

(a) If you close your CISWI unit but will restart it prior to the final compliance date in your State plan, you must meet the increments of progress specified in § 60.2575.

(b) If you close your CISWI unit but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations and operating limits on the date your unit restarts operation.

**§ 60.2615 What must I do if I plan to permanently close my CISWI unit and not restart it?**

If you plan to close your CISWI unit rather than comply with the State plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

### Model Rule—Waste Management Plan

**§ 60.2620 What is a waste management plan?**

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

**§ 60.2625 When must I submit my waste management plan?**

You must submit a waste management plan no later than the date specified in Table 1 of this subpart for submittal of the final control plan.

**§ 60.2630 What should I include in my waste management plan?**

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures, and the source must implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

### Model Rule—Operator Training and Qualification

**§ 60.2635 What are the operator training and qualification requirements?**

(a) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you must follow the procedures in § 60.2665.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section.

(1) Training on the eleven subjects listed in paragraphs (c)(1)(i) through (xi) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to correct malfunctions or conditions that may lead to malfunction.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(xi) Waste management practices.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that can serve as

reference material following completion of the course.

**§ 60.2640 When must the operator training course be completed?**

The operator training course must be completed by the later of the three dates specified in paragraphs (a) through (c) of this section.

(a) The final compliance date (Increment 2).

(b) Six months after CISWI unit startup.

(c) Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

**§ 60.2645 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2635(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2635(c)(2).

**§ 60.2650 How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(c) Inspection and maintenance.

(d) Responses to malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

**§ 60.2655 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.2650.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2645(a).

**§ 60.2660 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in paragraphs (a)(1) through (10) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

(1) Summary of the applicable standards under this subpart.

(2) Procedures for receiving, handling, and charging waste.

(3) Incinerator startup, shutdown, and malfunction procedures.

(4) Procedures for maintaining proper combustion air supply levels.

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(6) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under §§ 60.2620 through 60.2630.

(9) Procedures for handling ash.

(10) A list of the wastes burned during the performance test.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator.

(1) The initial review of the information listed in paragraph (a) of this section must be conducted by the later of the three dates specified in paragraphs (b)(1)(i) through (iii) of this section.

(i) The final compliance date (Increment 2).

(ii) Six months after CISWI unit startup.

(iii) Six months after being assigned to operate the CISWI unit.

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted no later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (c)(1) through (3) of this section.

(1) Records showing the names of CISWI unit operators who have completed review of the information in § 60.2660(a) as required by § 60.2660(b), including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2635, met the criteria for qualification under § 60.2645, and maintained or renewed their qualification under § 60.2650 or § 60.2655. Records must include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

**§ 60.2665 What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the two criteria specified in paragraphs (a) and (b) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in § 60.2660(a) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under § 60.2770.

(b) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (b)(1) and (2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to the Administrator every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from the Administrator to continue operation of the CISWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (b)(1) of this section. If the Administrator notifies you that your request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) A qualified operator is accessible as required under § 60.2635(a).

(ii) You notify the Administrator that a qualified operator is accessible and that you are resuming operation.

## Model Rule—Emission Limitations and Operating Limits

### § 60.2670 What emission limitations must I meet and by when?

You must meet the emission limitations specified in Table 2 of this subpart on the date the initial performance test is required or completed (whichever is earlier).

### § 60.2675 What operating limits must I meet and by when?

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for four operating parameters (as specified in Table 3 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraph (a)(1)(i) or (ii), as appropriate.

(i) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet scrubber, which is calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.

(b) You must meet the operating limits established during the initial performance test on the date the initial performance test is required or completed (whichever is earlier).

(c) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by you to initiate corrective action.

### § 60.2680 What if I do not use a wet scrubber to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber, or limit emissions in some other manner, to comply with the emission limitations under § 60.2670, you must petition the Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as additional operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(d) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

### § 60.2685 What happens during periods of startup, shutdown, and malfunction?

(a) The emission limitations and operating limits apply at all times except during CISWI unit startups, shutdowns, or malfunctions.

(b) Each malfunction must last no longer than 3 hours.

## Model Rule—Performance Testing

### § 60.2690 How do I conduct the initial and annual performance test?

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) You must document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in § 60.2740(b)(1)) and the types of waste burned during the performance test.

(c) All performance tests must be conducted using the minimum run duration specified in Table 2 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 of this section:

$$C_{adj} = C_{meas}\,(20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

$C_{adj}$ = pollutant concentration adjusted to 7 percent oxygen;

$C_{meas}$ = pollutant concentration measured on a dry basis;

$(20.9-7)$ = 20.9 percent oxygen − 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

(g) You must determine dioxins/furans toxic equivalency by following the procedures in paragraphs (g)(1) through (3) of this section.

(1) Measure the concentration of each dioxin/furan tetra- through octa-congener emitted using EPA Method 23.

(2) For each dioxin/furan congener measured in accordance with paragraph (g)(1) of this section, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 4 of this subpart.

(3) Sum the products calculated in accordance with paragraph (g)(2) of this section to obtain the total concentration

of dioxins/furans emitted in terms of toxic equivalency.

**§ 60.2695 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in Table 2 of this subpart.

### Model Rule—Initial Compliance Requirements

**§ 60.2700 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

You must conduct an initial performance test, as required under § 60.8, to determine compliance with the emission limitations in Table 2 of this subpart and to establish operating limits using the procedure in § 60.2675 or § 60.2680. The initial performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.2690.

**§ 60.2705 By what date must I conduct the initial performance test?**

The initial performance test must be conducted no later than 180 days after your final compliance date. Your final compliance date is specified in Table 1 of this subpart.

### Model Rule—Continuous Compliance Requirements

**§ 60.2710 How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, and opacity for each CISWI unit as required under § 60.8 to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 2 of this subpart and the procedures in § 60.2690.

(b) You must continuously monitor the operating parameters specified in § 60.2675 or established under § 60.2680. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2680. Operating limits do not apply during performance tests.

(c) You must only burn the same types of waste used to establish operating limits during the performance test.

**§ 60.2715 By what date must I conduct the annual performance test?**

You must conduct annual performance tests for particulate matter, hydrogen chloride, and opacity within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

**§ 60.2720 May I conduct performance testing less often?**

(a) You can test less often for a given pollutant if you have test data for at least 3 years, and all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months following the previous performance test.

(b) If your CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, you may choose to conduct performance tests for these pollutants every third year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

**§ 60.2725 May I conduct a repeat performance test to establish new operating limits?**

(a) Yes. You may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

(b) You must repeat the performance test if your feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

### Model Rule—Monitoring

**§ 60.2730 What monitoring equipment must I install and what parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitation under § 60.2670, you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 3 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 3 of this subpart at all times except as specified in § 60.2735(a).

(b) If you use a fabric filter to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (b)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) If you are using something other than a wet scrubber to comply with the emission limitations under § 60.2670, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.2680.

**§ 60.2735 Is there a minimum amount of monitoring data I must obtain?**

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or quality control activities (including, as

applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the CISWI unit is operating.

(b) Do not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

**Model Rule—Recordkeeping and Reporting**

**§ 60.2740 What records must I keep?**

You must maintain the 13 items (as applicable) as specified in paragraphs (a) through (m) of this section for a period of at least 5 years:

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (6) of this section:

(1) The CISWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For affected CISWI units that establish operating limits for controls other than wet scrubbers under § 60.2680, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(6) If a fabric filter is used to comply with the emission limitations, you must record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.2675(c).

(c) Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 3 of this subpart or a deviation from other operating limits established under § 60.2680 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

(g) Records showing the names of CISWI unit operators who have completed review of the information in § 60.2660(a) as required by § 60.2660(b), including the date of the initial review and all subsequent annual reviews.

(h) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2635, met the criteria for qualification under § 60.2645, and maintained or renewed their qualification under § 60.2650 or § 60.2655. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(i) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(j) Records of calibration of any monitoring devices as required under § 60.2730.

(k) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(l) The information listed in § 60.2660(a).

(m) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

**§ 60.2745 Where and in what format must I keep my records?**

All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

**§ 60.2750 What reports must I submit?**

See Table 5 of this subpart for a summary of the reporting requirements.

**§ 60.2755 When must I submit my waste management plan?**

You must submit the waste management plan no later than the date specified in Table 1 of this subpart for submittal of the final control plan.

**§ 60.2760 What information must I submit following my initial performance test?**

You must submit the information specified in paragraphs (a) through (c) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.2700, as applicable.

(b) The values for the site-specific operating limits established in § 60.2675 or § 60.2680.

(c) If you are using a fabric filter to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.2730(b).

**§ 60.2765 When must I submit my annual report?**

You must submit an annual report no later than 12 months following the submission of the information in § 60.2760. You must submit subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under title V of the Clean Air Act, you may be required by the permit to submit these reports more frequently.)

**§ 60.2770 What information must I include in my annual report?**

The annual report required under § 60.2765 must include the ten items listed in paragraphs (a) through (j) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2775, 60.2780, and 60.2785.

(a) Company name and address.

(b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to § 60.2675 or § 60.2680.

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the operating limits

was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) Information recorded under § 60.2740(b)(6) and (c) through (e) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If you met the requirements of § 60.2720(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2720(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

**§ 60.2775 What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this subpart, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

**§ 60.2780 What must I include in the deviation report?**

In each report required under § 60.2775, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this subpart, include the six items described in paragraphs (a) through (f) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Duration and causes of each deviation from the emission limitations or operating limits and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

**§ 60.2785 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?**

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from the Administrator to continue operation of the CISWI unit.

(b) If your unit was shut down by the Administrator, under the provisions of § 60.2665(b)(2), due to a failure to provide an accessible qualified operator, you must notify the Administrator that you are resuming operation once a qualified operator is accessible.

**§ 60.2790 Are there any other notifications or reports that I must submit?**

Yes. You must submit notifications as provided by § 60.7.

**§ 60.2795 In what form can I submit my reports?**

Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

**§ 60.2800 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

## Model Rule—Title V Operating Permits

**§ 60.2805 Am I required to apply for and obtain a title V operating permit for my unit?**

Yes. Each CISWI unit must operate pursuant to a permit issued under section 129(e) and title V of the Clean Air Act by the later of the two dates in paragraphs (a) and (b) of this section.

(a) Thirty-six months after December 1, 2000.

(b) The effective date of the title V permit program to which your unit is subject. If your unit is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, being a major source), then your unit may be required to apply for and obtain a title V permit prior to the deadlines noted above. If more than one requirement triggers the requirement to apply for a title V permit, the 12-month timeframe for filing a title V application is triggered by the requirement which first causes the source to be subject to title V.

## Model Rule—Air Curtain Incinerators

**§ 60.2810 What is an air curtain incinerator?**

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§§ 60.2810 through 60.2870).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

**§ 60.2815 What are my requirements for meeting increments of progress and achieving final compliance?**

If you plan to achieve compliance more than 1 year following the effective date of State plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section.

(a) Submit a final control plan.

(b) Achieve final compliance.

**§ 60.2820 When must I complete each increment of progress?**

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

**§ 60.2825 What must I include in the notifications of achievement of increments of progress?**

Your notification of achievement of increments of progress must include the three items described in paragraphs (a) through (c) of this section.

(a) Notification that the increment of progress has been achieved.

(b) Any items required to be submitted with each increment of progress (see § 60.2840).

(c) Signature of the owner or operator of the incinerator.

**§ 60.2830 When must I submit the notifications of achievement of increments of progress?**

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

**§ 60.2835 What if I do not meet an increment of progress?**

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in Table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

**§ 60.2840 How do I comply with the increment of progress for submittal of a control plan?**

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section.

(a) Submit the final control plan, including a description of any devices for air pollution control and any process changes that you will use to comply with the emission limitations and other requirements of this subpart.

(b) Maintain an onsite copy of the final control plan.

**§ 60.2845 How do I comply with the increment of progress for achieving final compliance?**

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

**§ 60.2850 What must I do if I close my air curtain incinerator and then restart it?**

(a) If you close your incinerator but will reopen it prior to the final compliance date in your State plan, you must meet the increments of progress specified in § 60.2815.

(b) If you close your incinerator but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations on the date your incinerator restarts operation.

**§ 60.2855 What must I do if I plan to permanently close my air curtain incinerator and not restart it?**

If you plan to close your incinerator rather than comply with the State plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

**§ 60.2860 What are the emission limitations for air curtain incinerators?**

(a) After the date the initial stack test is required or completed (whichever is earlier), you must meet the limitations in paragraphs (a)(1) and (2) of this section.

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Except during malfunctions, the requirements of this subpart apply at all times, and each malfunction must not exceed 3 hours.

**§ 60.2865 How must I monitor opacity for air curtain incinerators?**

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

(b) Conduct an initial test for opacity as specified in § 60.8 no later than 180 days after your final compliance date.

(c) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of your previous test.

**§ 60.2870 What are the recordkeeping and reporting requirements for air curtain incinerators?**

(a) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the Administrator approves another format, for at least 5 years.

(b) Make all records available for submittal to the Administrator or for an inspector's onsite review.

(c) Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in paragraphs (c)(1) and (2) of this section.

(1) The types of materials you plan to combust in your air curtain incinerator.

(2) The results (each 6-minute average) of the initial opacity tests.

(d) Submit annual opacity test results within 12 months following the previous report.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date and keep a copy onsite for a period of 5 years.

**Model Rule—Definitions**

**§ 60.2875 What definitions must I know?**

Terms used but not defined in this subpart are defined in the Clean Air Act and subparts A and B of this part.

*Administrator* means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or Administrator of a State Air Pollution Control Agency.

*Agricultural waste* means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

*Bag leak detection system* means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days starting on January 1 and ending on December 31.

*Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Clean lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion device that combusts commercial and industrial waste, as defined in this subpart. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber.

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

*Commercial and industrial waste* means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

*Contained gaseous material* means gases that are in a container when that container is combusted.

*Cyclonic barrel burner* means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air.

*Deviation means* any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

*Dioxins/furans* means tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Discard* means, for purposes of this subpart and 40 CFR part 60, subpart DDDD, only, burned in an incineration unit without energy recovery.

*Drum reclamation unit* means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

*Energy recovery* means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

*Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

*Modification* or *modified CISWI unit* means a CISWI unit you have changed later than June 1, 2001 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

*Part reclamation unit* means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

*Particulate matter* means total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of this part.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Rack reclamation unit* means a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.

*Reconstruction* means rebuilding a CISWI unit and meeting two criteria:

(1) The reconstruction begins on or after June 1, 2001.

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber.

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community

activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this subpart and subpart CCCC, only, solid waste does not include the waste burned in the fifteen types of units described in § 60.2555.

*Standard conditions*, when referring to units of measure, means a temperature of 68°F (20°C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means the period of time between the activation of the system and the first charge to the unit.

*Wet scrubber* means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation, or demolition wastes.

(3) Clean lumber.

TABLE 1 TO SUBPART DDDD—MODEL RULE—INCREMENTS OF PROGRESS AND COMPLIANCE SCHEDULES

| Comply with these increments of progress | By these dates [a] |
|---|---|
| Increment 1—Submit final control plan | (Dates to be specified in State plan) |
| Increment 2—Final compliance | (Dates to be specified in State plan) [b] |

[a] Site-specific schedules can be used at the discretion of the State.
[b] The date can be no later than 3 years after the effective date of State plan approval or December 1, 2005.

TABLE 2 TO SUBPART DDDD—MODEL RULE—EMISSION LIMITATIONS

| For the air pollutant | You must meet this emission limitation [a] | Using this averaging time | And determining compliance using this method |
|---|---|---|---|
| Cadmium | 0.004 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of appendix A of this part) |
| Carbon monoxide | 157 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 10, 10A, or 10B, of appendix A of this part) |
| Dioxins/furans (toxic equivalency basis). | 0.41 nanograms per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 23 of appendix A of this part) |
| Hydrogen chloride | 62 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 26A of appendix A of this part) |
| Lead | 0.04 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of appendix A of this part) |
| Mercury | 0.47 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 29 of appendix A of this part) |
| Opacity | 10 percent | 6-minute averages | Performance test (Method 9 of appendix A of this part) |
| Oxides of nitrogen | 388 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Methods 7, 7A, 7C, 7D, or 7E of appendix A of this part) |
| Particulate matter | 70 milligrams per dry standard cubic meter. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 5 or 29 of appendix A of ths part) |
| Sulfur dioxide | 20 parts per million by dry volume. | 3-run average (1 hour minimum sample time per run). | Performance test (Method 6 or 6c of appendix A of this part) |

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

TABLE 3 TO SUBPART DDDD—MODEL RULE—OPERATING LIMITS FOR WET SCRUBBERS

| For these operating parameters | You must establish these operating limits | And monitor using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording | Averaging time |
| Charge rate | Maximum charge rate. | Continuous | Every hour | Daily (batch units). 3-hour rolling (continuous and intermittent units) [a] |
| Pressure drop across the wet scrubber or amperage to wet scrubber. | Minimum pressure drop or amperage. | Continuous | Every 15 minutes | 3-hour rolling [a] |
| Scrubber liquor flow rate. | Minimum flow rate | Continuous | Every 15 minutes | 3-hour rolling [a] |
| Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | 3-hour rolling [a] |

[a] Calculated each hour as the average of the previous 3 operating hours.

TABLE 4 TO SUBPART DDDD—MODEL RULE—TOXIC EQUIVALENCY FACTORS

| Dioxin/furan congener | Toxic equivalency factor |
|---|---|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

TABLE 5 TO SUBPART DDDD—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS [a]

| Report | Due date | Contents | Reference |
|---|---|---|---|
| Waste Management Plan. | No later than the date specified in table 1 for submittal of the final control plan. | • Waste management plan | § 60.2755. |
| Initial Test Report | No later than 60 days following the initial performance test. | • Complete test report for the initial performance test<br>• The values for the site-specific operating limits<br>• Installation of bag leak detection systems for fabric filters | § 60.2760. |
| Annual Report | No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report. | • Name and address<br>• Statement and signature by responsible official<br>• Date of report<br>• Values for the operating limits<br>• If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period<br>• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported<br>• Information for deviations or malfunctions recorded under § 60.2740(b)(6) and (c) through (e)<br>• If a performance test was conducted during the reporting period, the results of the test<br>• If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2155(a) or (b) were met<br>• Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks | §§ 60.2765 and 60.2770. |
| Emission Limitation or Operating Limit Deviation Report. | By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year. | • Dates and times of deviations<br>• Averaged and recorded data for these dates<br>• Duration and causes for each deviation and the corrective actions taken<br>• Copy of operating limit monitoring data and any test reports<br>• Dates, times, and causes for monitor downtime incidents<br>• Whether each deviation occurred during a period of startup, shutdown, or malfunction | §§ 60.2775 and 60.2780. |

TABLE 5 TO SUBPART DDDD—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS [a]—Continued

| Report | Due date | Contents | Reference |
|---|---|---|---|
| Qualified Operator Deviation Notification. | Within 10 days of deviation | • Statement of cause of deviation<br>• Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible | § 60.2785(a)(1). |
| Qualified Operator Deviation Status Report. | Every 4 weeks following deviation | • Description of efforts to have an accessible qualified operator<br>• The date a qualified operator will be accessible<br>• Request for approval to continue operation | § 60.2785(a)(2). |
| Qualified Operator Deviation Notification of Resumed Operation. | Prior to resuming operation | • Notification that you are resuming operation | § 60.2785(b) |

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.

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federal register

Monday
September 15, 1997

Part II

# Environmental Protection Agency

40 CFR Part 60
Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/ Medical/Infectious Waste Incinerators; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–5878–8]**

**RIN 2060–AC62**

## Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This action promulgates new source performance standards (NSPS or standards) and emission guidelines (EG or guidelines) to reduce air emissions from hospital/medical/infectious waste incinerator(s) (HMIWI) by adding subpart Ec, standards of performance for new HMIWI, and subpart Ce, emission guidelines for existing HMIWI, to 40 CFR part 60. The standards and guidelines implement sections 111 and 129 of the Clean Air Act (CAA) as amended in 1990. The standards and guidelines apply to units whose primary purpose is the combustion of hospital waste and/or medical/infectious waste. Sources are required to achieve emission levels reflecting the maximum degree of reduction in emissions of air pollutants that the Administrator has determined is achievable, taking into consideration the cost of achieving such emission reduction, any nonair-quality health and environmental impacts, and energy requirements. The promulgated standards and guidelines establish emission limits for particulate matter (PM), opacity, sulfur dioxide ($SO_2$), hydrogen chloride (HCl), oxides of nitrogen ($NO_X$), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), dioxins and dibenzofurans (dioxins/furans), and fugitive ash emissions. Some of the pollutants being regulated are considered to be carcinogens and at sufficient concentrations can cause toxic effects following exposure. The standards and guidelines also establish requirements for HMIWI operator training/qualification, waste management plans, and testing/monitoring of pollutants and operating parameters. Additionally, the guidelines for existing HMIWI contain equipment inspection requirements and the standards for new HMIWI include siting requirements.

**DATES:** *Effective Dates.* The standards for new sources (§ 60.17 and §§ 60.50c through 60.58c) are effective as of March 16, 1998 and the emission guidelines for existing sources (§ 60.30 and §§ 60.30e through 60.39e) are effective as of November 14, 1997. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 16, 1998. See **SUPPLEMENTARY INFORMATION** for a discussion of the schedule for judicial review.

*Comments.* Comments on the Information Collection Request (ICR) document associated with the final standards for new sources are requested, as discussed in section VI.B of this preamble. Comments on the ICR document must be received on or before November 14, 1997. Refer to Section VI.B for further information on this request for comment.

**ADDRESSES:** *Comments.* As noted above, comments on the ICR document associated with the final standards for new sources are requested. See section VI.B and the **SUPPLEMENTARY INFORMATION** section of this preamble for further information on obtaining a copy of the ICR document and addresses for submitting comments on the ICR document.

*Background Information.* The principal background information for the final standards and guidelines includes a background information document entitled "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b), which contains a summary of all the public comments submitted regarding the changes to the standards and guidelines that were discussed in the June 20, 1996 **Federal Register** document (61 FR 31736) and the EPA's response to these comments. Background information documents which present the economic and regulatory impacts of the standards and guidelines entitled: (1) "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Analysis of Economic Impacts for Existing Sources" (EPA–453/R–97–007b); (2) "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Analysis of Economic Impacts for New Sources" (EPA–453/R–97–008b); and (3) "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Regulatory Impact Analysis for New and Existing Facilities" (EPA–453/R–97–009b) are available. Also a document entitled "Fact Sheet: New Hospital/Medical/Infectious Waste Incinerators—Promulgated Subpart Ec Standards," which succinctly summarizes the final standards, and a document entitled "Fact Sheet: Existing Hospital/Medical/Infectious Waste Incinerators—Promulgated Subpart Ce Emission Guidelines," which succinctly summarizes the guidelines, are available. See **SUPPLEMENTARY INFORMATION** for instructions and addresses for obtaining these documents.

*Docket.* Docket No. A–91–61, which contains supporting information used in developing the standards and guidelines, is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday except for Federal holidays at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (Mail Code 6102), 401 M Street SW, Washington DC 20460 (phone: (202) 260–7548). The docket is located at the above address in room M–1500, Waterside Mall (ground floor, central mall). A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Mr. Rick Copland at (919) 541–5265, Combustion Group, Emission Standards Division (MD–13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711 (copland.rick@epamail.epa.gov) or any of the EPA Regional Office contacts listed in Table 1 below.

TABLE 1.—CONTACTS IN EPA REGIONAL OFFICES

| Region | Contact | Phone No. |
|---|---|---|
| I (Boston) | Susan Lancey | (617) 565–3587 |
| II (New York) | Christine DeRosa | (212) 637–4022 |
| III (Philadelphia) | James Topsale | (215) 566–2190 |
| IV (Atlanta) | Scott Davis | (404) 562–9127 |
| V (Chicago) | Douglas Aburano (MI) | (312) 353–6960 |

TABLE 1.—CONTACTS IN EPA REGIONAL OFFICES—Continued

| Region | Contact | Phone No. |
|---|---|---|
| | Ryan Bahr (IN) | (312) 353–4366 |
| | Scott Hamilton (OH) | (312) 353–4775 |
| | Charles Hatten (WI) | (312) 886–6031 |
| | Mark Palermo (IL) | (312) 886–6082 |
| | Rick Tonielli (MN) | (312) 886–6068 |
| VI (Dallas) | Mick Cote | (214) 665–7219 |
| VII (Kansas City) | Wayne Kaiser | (913) 551–7603 |
| VIII (Denver) | Meredith Bond | (303) 312–6438 |
| IX (San Francisco) | Patricia Bowlin | (415) 744–1188 |
| X (Seattle) | Catherine Woo | (206) 553–1814 |

**SUPPLEMENTARY INFORMATION:**

**Regulated Entities**

Entities potentially regulated by the standards and guidelines are those which operate hospital/medical/infectious waste incinerators. Regulated categories and entities include those listed in Table 2.

TABLE 2.—REGULATED ENTITIES[a]

| Category | Examples of regulated entities |
|---|---|
| Industry | Hospitals, nursing homes, research laboratories, other health care facilities, commercial waste disposal companies. |
| Federal Government | Armed services, public health service, Federal hospitals, other Federal health care facilities. |
| State/local/Tribal Government | State/county/city hospitals and other health care facilities. |

[a] This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the standards or guidelines for HMIWI. This table lists the types of entities that EPA is now aware could potentially be regulated. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by the standards or guidelines for hospital/medical/ infectious waste incinerators, you should carefully examine the applicability criteria in sections 60.50c and 60.51c of the promulgated standards, section 60.32e of the promulgated guidelines, and in section III.A of today's notice. If you have questions regarding the applicability of the HMIWI standards and guidelines to a particular entity, consult a person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

**Documents Available Electronically**

This **Federal Register** document discusses: (1) The standards for new HMIWI, (2) the guidelines for existing HMIWI, and (3) a request for public comment on the ICR document. This preamble and regulatory text are available electronically via the Internet. Also available electronically are FACT SHEETS, which summarize the final standards and guidelines. They are suggested reading for persons requiring an overview of the standards and guidelines. Hard copies of the FACT SHEETS can also be obtained by calling Donna Collins at (919) 541–5578. The following five items are available electronically in file "MWIFINAL.ZIP":

1. "Fact Sheet: New Hospital/ Medical/Infectious Waste Incinerators—Promulgated Subpart Ec Standards."

2. "Fact Sheet: Existing Hospital/ Medical/Infectious Waste Incinerators—Promulgated Subpart Ce Emission Guidelines."

3. **Federal Register** document for this promulgation: "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators" (this document).

4. "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/ R–97–006b).

5. Information Collection Request document for these standards for new sources: "Supporting Statement for ICR No. 1730.02—1997 Standards for New Hospital/Medical/Infectious Waste Incinerators (Subpart Ec)."

The documents are available via the Internet at "http://www.epa.gov/ttn/ oarpg/rules.html". The documents are also available via the Internet through the Unified Air Toxics Website at "http://www.epa.gov/oar/oaqps/airtox/ ".

**Judicial Review**

Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are in today's notice may not be challenged later in the civil or criminal proceedings brought by the EPA to enforce these requirements.

**Preamble Outline**

The following outline is provided to aid in locating information in the introductory text (preamble) to the final standards and guidelines.

I. Acronyms, Abbreviations, and Measurement Units
  A. Acronyms
  B. Abbreviations and Measurement Units
II. Introduction
  A. Purpose of the Standards and Guidelines
  B. Implementation of the Emission Guidelines
  1. Implementation Activities
  2. Public Involvement
  C. Technical Basis of the Standards and Guidelines
  D. February 1995 Proposal
  E. June 1996 Re-proposal
  F. Stakeholders and Public Involvement
III. Considerations in Developing the Final Standards and Guidelines
  A. Applicability
  1. Definition of Medical Waste
  2. Co-fired Combustors
  3. Waste Types
  4. Cement Kilns
  B. Pyrolysis Units
  C. Waste Management Plans
  D. Testing, Monitoring, and Inspection
  E. Operator Training and Qualification
IV. Standards of Performance for New Sources
  A. Summary of the Standards
  B. Significant Issues and Changes

1. Combined Dry/Wet Scrubbers
2. Siting Analysis
C. Selection of MACT
D. Impacts of the Standards
V. Emission Guidelines for Existing Sources
A. Summary of the Guidelines
B. Significant Issues and Changes
C. Selection of MACT
D. Impacts of the Guidelines
VI. Administrative Requirements
A. Docket
B. Paperwork Reduction Act
C. Executive Order 12866
D. Unfunded Mandates Reform Act
E. Executive Order 12875
F. Regulatory Flexibility Act (RFA) and Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)
G. Submission to Congress and the General Accounting Office
H. Clean Air Act Procedural Requirements

## I. Acronyms, Abbreviations, and Measurement Units

The following acronyms, abbreviations, and measurement units are provided to clarify the preamble to the final standards and guidelines.

### *A. Acronyms*

APCD air pollution control device
APTI Air Pollution Training Institute
CAA Clean Air Act
CAAA Clean Air Act Amendments of 1990
CEMS continuous emissions monitoring system(s)
CFBC circulating fluidized bed combustor
CFR Code of Federal Regulations
DI dry injection
EPA U.S. Environmental Protection Agency
EG emission guidelines
FF fabric filter
FR Federal Register
HAP hazardous air pollutant(s)
HMIWI hospital/medical/infectious waste incinerator(s)
ICCR Industrial Combustion Coordinated Rulemaking
ICR information collection request
MACT maximum achievable control technology
MSW municipal solid waste
MWC municipal waste combustor(s)
MWI medical waste incinerator(s)
MWP medical waste pyrolysis
MWTA Medical Waste Tracking Act
NAPH National Association of Public Hospitals
NSPS new source performance standards
NSR new source review
NYSDOH New York State Department of Health
OAQPS Office of Air Quality Planning and Standards
OMB Office of Management and Budget
ORD Office of Research and Development
PSD prevention of significant deterioration
RCRA Resource Conservation and Recovery Act
RFA Regulatory Flexibility Act
RMW regulated medical waste
SBA Small Business Administration
SBREFA Small Business Regulatory Enforcement Fairness Act
SMSA standard metropolitan statistical area
SWDA Solid Waste Disposal Act

### *B. Abbreviations and Measurement Units*

bps=bits per second
Btu=British thermal units
Btu/yr=British thermal units per year
Cd=cadmium
CDD/CDF=dioxins/furans
CO=carbon monoxide
dioxins=polychlorinated dibenzo-p-dioxins
dscf=dry standard cubic feet (at 14.7 pounds per square inch, 68°F)
dscm=dry standard cubic meters (at 14.7 pounds per square inch, 68°F)
°F=degrees Fahrenheit
$ft^3$=cubic feet
furans=polychlorinated dibenzofurans
g=gram (454 grams per pound)
g/yr=grams per year
gr=grains (7,000 grains per pound)
HCl=hydrogen chloride
Hg=mercury
$m^3$=cubic meter (35.3 cubic feet per cubic meter)
mg=milligrams ($10^{-3}$ grams)
Mg=megagram (1.1 tons per megagram)
Mg/yr=megagrams per year
$MMm^3$=million cubic meters
MW=megawatt
MW-hr/yr=megawatt-hours per year
ng=nanogram ($10^{-9}$ grams)
$NO_X$=nitrogen oxides
Pb=lead
PM=particulate matter
ppmv=parts per million by volume
$SO_2$=sulfur dioxide
TEQ basis=2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors
tons/d=tons per day
total mass basis=total mass of tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

## II. Introduction

### *A. Purpose of the Standards and Guidelines*

The 1990 Clean Air Act Amendments (CAAA) reflect growing public concern about the large volume of toxic air pollutants released from numerous categories of emission sources. Title III of the CAAA specifically enumerated 189 hazardous air pollutants (HAP) and instructed EPA to protect public health by reducing emissions of these pollutants from the sources that release them. The EPA's standards are to be issued in two phases. The first phase standards are designed to bring all sources up to the level of emissions control achieved by those that are already well-controlled. The second phase standards, due a few years later, are to require further emission reductions in any case in which the first phase measures were not by themselves sufficient to fully protect the public health.

In this context, the CAAA singled out waste incineration for special attention. Congress recognized both a high level of public concern about the incineration of municipal, medical, and other solid wastes and a number of special management concerns for these types of sources. Consequently, section 129 of the CAA directs EPA to apply the two-phase control approach to various categories of solid waste incinerators, including hospital/ medical/infectious waste incinerator(s) (HMIWI). Today's action promulgates standards and guidelines for new and existing HMIWI under section 129. Current methods of medical waste incineration cause the release of a wide array of air pollutants, including several pollutants of particular public health concern.

The EPA estimates that there are approximately 2,400 HMIWI operating in the United States, which combust approximately 767 thousand Mg (846 thousand tons) of hospital waste and medical/infectious waste annually. Emissions from HMIWI contain organics (dioxins/furans), particulates (PM), metals (Cd, Pb, and Hg), acid gases (HCl and $SO_2$), and $NO_X$. These pollutants can have adverse effects on both public health and welfare. Pollutants of principal concern to public health include dioxins/furans, PM, Pb, Cd, and Hg. Today's standards and guidelines are set forth as emission limits and will significantly reduce HMIWI emissions.

Several States, including New York, California, and Texas, have adopted relatively stringent regulations in the past few years limiting emissions from HMIWI. The implementation of these regulations has brought about very large reductions in HMIWI emissions and the associated risk to public health in those States. Today EPA is promulgating nationally applicable emission standards and guidelines for HMIWI that build on the experience of these leading States. Like the State regulations, the standards and guidelines promulgated today are based on the use of add-on air pollution control systems. These standards and

guidelines implement the first phase requirements of section 129 described above. As described in detail below, section 129, like section 112, of the CAA instructs the Agency to set performance standards that challenge industry to meet or exceed the pollution control standards established by better controlled similar facilities. In this way, the overall state of environmental practice is raised for large segments of industry, a basic level of health protection is provided to all communities, situations in which uncertainty about total risk and hazard result in no protection for the exposed public are avoided, and yet the cost of pollution control to industry is constrained to levels already absorbed by similar operations. Eight years later, in a second phase, EPA will evaluate whether the residual public health risk warrants additional control.

The EPA's Office of Research and Development (ORD) is preparing a national inventory of dioxin emissions as part of its Dioxin Reassessment. This effort will include emission estimates for HMIWI. Since the effort is not yet complete, the results are not included in this package. The ORD is considering a very similar approach to that used in this rulemaking and anticipates generating similar emission estimates.

*B. Implementation of the Emission Guidelines*

The subpart Ce emission guidelines are unique in that, unlike the subpart Ec NSPS, the guidelines are not direct Federal requirements for HMIWI. The subpart Ec NSPS are Federal requirements that apply to all new HMIWI units that commence construction after June 20, 1996 or to existing HMIWI units that commence modification after March 16, 1998. The subpart Ce emission guidelines require States to develop section 111(d)/129 State plans to regulate existing HMIWI built on or before June 20, 1996. These State plans must be submitted to EPA for approval and must be at least as protective as the guidelines. Together, 40 CFR part 60, subpart B and subpart Ce specify the content and the general rules for adopting and submitting the section 111(d)/129 State plans.

The CAA requires that each State submit a State plan to EPA within 1 year of EPA's adoption of the guidelines. State plans must contain specific information and legal mechanisms necessary to implement the guidelines. The State must make available to the public the State plan and provide opportunity for discussion of the State plan in a public hearing prior to submittal to EPA. The State must submit the final plan to EPA by September 15, 1998. The EPA then has 6 months to approve or disapprove the State plan. Plan approval or disapproval will be published in the **Federal Register**. If a State plan is disapproved, EPA will state the reasons for disapproval in the **Federal Register**. The State can respond to EPA's concerns and submit a revised plan. If a State does not submit an approvable State plan by September 15, 1999, EPA will adopt and implement a Federal plan that applies to existing HMIWI in the State.

1. Implementation Activities

The EPA is preparing an Enabling Document to assist States with implementing the HMIWI guidelines. The EPA Regional Offices will mail hard copies of the Enabling Document to their State contacts. This document should be publicly available in the next few weeks. The public can access this document electronically via the Internet at "http://www.epa.gov/ttn/oarpg/rules.html" or "http://www.epa.gov/oar/oaqps/airtox/".

In September 1997, EPA plans to broadcast a telecourse to States, regions, and the public on the HMIWI rule and on implementation requirements. State field offices will be notified of the telecourse. The EPA's distance learning network telecourse schedule, as well as a list of telecourse sites, is available at http://134.67.104.12/html/apti/aptc.htm.

Finally, EPA will host its annual Air Toxics Workshop for EPA Regions and States in Research Triangle Park in late August 1997. A 1-hour session is scheduled to provide States an overview of the HMIWI rule and to discuss implementation issues. The Air Toxics Workshop provided for EPA Regions and States is not open to the public. Opportunities for public participation in the implementation process are discussed below.

2. Public Involvement

Public participation, under the provision of the CAA, is an important right and responsibility of citizens in the State process of developing, adopting, and implementing section 111(d)/ 129 State plans. As with State Implementation Plans (SIP) for criteria pollutants, EPA regulations in 40 CFR part 60, subpart B, make it clear that citizen input on section 111(d)/129 State plans is encouraged in order to help define appropriate emission standards and retrofit schedules. Under Subpart B, some minimum public participation requirements are as follows:

a. Reasonable notice of one or more public hearing(s) at least 30 days before the hearing;

b. One or more public hearing(s) on the section 111(d)/129 State plan (or revision) conducted at location(s) within the State, if requested;

c. Date, time, and place of hearing(s) prominently advertised in each region affected;

d. Availability of draft section 111(d)/129 State plan for public inspection in at least one location in each region to which it will apply;

e. Notice of hearing provided to EPA Regional Administrator, local affected agencies, and to other States affected;

f. Certification that the public hearing, if held, was conducted in accordance with Subpart B State procedures; and

g. Hearing records must be retained for a minimum of 2 years; these records must include the list of commenters, their affiliation, summary of each presentation and/or comments submitted, and the State's responses to those comments.

*C. Technical Basis of the Standards and Guidelines*

Section 129 requires the EPA to develop numerical emission limitations in the standards for new HMIWI and guidelines for existing HMIWI for the following: Particulate matter (PM), opacity, sulfur dioxide ($CO_2$), hydrogen chloride (HCl), oxides of nitrogen ($NO_X$), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans (dioxin/furan). Section 129 requires that the standards and guidelines reflect the maximum degree of reduction in emissions of air pollutants, taking into consideration the cost of achieving such emission reduction, any nonair-quality health and environmental impacts, and energy requirements that the Administrator determines are achievable for a particular category of sources. This control level is commonly referred to as the "maximum achievable control technology" or "MACT." Section 129 also provides that standards for new sources may not be less stringent than the emissions control achieved in practice by the best controlled similar unit. This is commonly referred to as the "MACT floor" for new HMIWI. Additionally, section 129 provides that the emission limitations in the guidelines for existing HMIWI may not be less stringent than the average emission limitation achieved by the best performing 12 percent of units in the category. This is commonly referred to as the "MACT floor" for existing HMIWI.

The CAA requires EPA to evaluate standards and guidelines more stringent than the MACT floor, considering costs and other impacts described above. If EPA concludes that more stringent standards and/or guidelines are achievable considering costs and other impacts, then the standards and/or guidelines would be established at these more stringent levels (i.e., MACT would be more stringent than the MACT floor). The EPA may establish NSPS or EG at the MACT floor only if EPA concludes that the costs and/or other impacts associated with the more stringent requirements are unreasonable. In no case may EPA establish emission limitations less stringent than the MACT floor.

Technical data on the number and size of HMIWI, control technologies in use, permit emission limits, and emission test data were used to determine the MACT floors for new and existing HMIWI and to define regulatory options more stringent than the MACT floors. The types of data EPA considered in selecting final standards and guidelines included emissions information from literature and State and local agencies; and emissions test data provided by industry or gathered during EPA's HMIWI emissions test program. Overall, the EPA used performance test data from over 30 HMIWI to develop the standards and guidelines.

In keeping with the Administrator's "reinventing government" initiative, several of the changes to the guidelines and standards were made to streamline the regulations and provide increased flexibility while optimizing environmental control by using common sense initiatives. Examples of these changes include the following: (1) Reduced testing for HMIWI demonstrating compliance with the required emission levels; (2) narrowing the definition of medical waste; (3) clarification of siting requirements for new HMIWI; (4) allowing HMIWI operators to receive training and qualification through a State-approved training program; (5) requiring facilities to develop a waste management plan instead of banning materials from waste streams; (6) revised text to clarify that the emission limits do not apply during periods when units are burning only pathological, chemotherapeutic, and/or low-level radioactive waste; (7) exemption for plants firing small amounts of hospital waste and/or medical/infectious waste (10 percent or less by weight); (8) allowing certain records to be maintained in either electronic or paper format without duplication; and (9) establishing emission limits for existing HMIWI that may be met with either a wet or dry scrubber. All of these changes are discussed further in sections III, IV, and V of this preamble and in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses (EPA–453/R–97–006b). These changes improve the effectiveness and efficiency of the standards and guidelines without any reduction in environmental protection.

*D. February 1995 Proposal*

On February 27, 1995 (60 FR 10654), EPA published proposed NSPS and EG for HMIWI. The 1995 proposal was the result of several years of effort reviewing available information in light of the CAA requirements described above.

During the data-gathering phase of the HMIWI project, it was difficult to get an accurate count of the nationwide HMIWI population. In addition, it was difficult to find HMIWI with add-on air pollution control systems in place. Information from a few State surveys led to an estimated population of 3,700 existing HMIWI.

The 1995 proposed standards and guidelines contained HMIWI subcategories that were determined based on design differences among different types of incinerators: continuous, intermittent, and batch. These three design types roughly correlate to HMIWI size.

A few HMIWI with various levels of combustion control (no add-on air pollution control) were tested to determine the performance of combustion control in reducing HMIWI emissions. One HMIWI equipped with a wet scrubber (add-on control) was tested to determine the performance capabilities of wet scrubbing systems. A few other HMIWI equipped with dry scrubbing systems (add-on control) were tested to determine the performance capabilities of dry scrubbing systems. These systems were considered typical of air pollution control systems available at the time, and the data appeared to indicate that dry scrubbing systems could achieve much lower emissions than wet scrubbing systems.

As mentioned above, the MACT floor for new HMIWI is to reflect the emissions control achieved by the best controlled similar unit. Dry scrubbing systems were identified on at least one HMIWI in each of the three subcategories (continuous, intermittent, and batch). Consequently, the MACT floor emission levels for the 1995 proposed NSPS reflected the performance capabilities of dry scrubbing systems.

For existing HMIWI under the 1995 proposed emission guidelines, State regulations and permits were used to calculate the average emission limitation achieved by the best performing 12 percent of units. These results were then compared with the results of the emission tests on wet and dry scrubbing systems. This comparison led to the conclusion that the 1995 proposed MACT floor for existing HMIWI would require the use of a dry scrubbing system, even for small existing batch HMIWI.

Following determination of the HMIWI population, subcategories, performance of technology, and MACT floors, the CAA requires EPA to consider standards and guidelines that are more stringent than the floors. However, because the MACT floors calculated for the 1995 proposal were so stringent, EPA was left with few options to consider. Emission limits reflecting the capability of dry scrubbing systems with carbon were proposed for all sizes and types of new and existing HMIWI.

A proposal is essentially a request for public comment on the information used, assumptions made, and conclusions drawn from the evaluation of available information. Following the 1995 proposal, more than 700 comment letters were received, some including new information and some indicating that commenters were in the process of gathering information for EPA to consider. The large amount of new information that was ultimately submitted addressed every aspect of the 1995 proposed standards and guidelines, including: the existing population of HMIWI, HMIWI subcategories, the performance capabilities of air pollution control systems, monitoring and testing, operator training, alternative medical waste treatment technologies, and the definition of medical waste. In almost every case, the new information led to different conclusions, as outlined below.

*E. June 1996 Re-Proposal*

On June 20, 1996, EPA published a **Federal Register** document to: (1) Announce the availability of the new information received following the 1995 proposal, (2) review EPA's assessment of the new information, (3) provide EPA's inclinations as to how the new information might change the final standards and guidelines, and (4) solicit comments on EPA's assessments and inclinations. In the June 20, 1996 **Federal Register** document, EPA indicated that the notice was not a re-

proposal, but merely a notice of supplemental information. However, some commenters stated that the 1996 notice should be considered a re-proposal. Upon consideration of these comments, EPA now considers the 1996 notice to have been a re-proposal. The 1996 notice included all of the elements of a re-proposal, including: A new inventory of sources; new subcategories; revised assessments of emissions and performance of technology; new MACT floors; new regulatory options; revised cost, environmental, and economic impacts; an indication of EPA's selection of MACT; and a request for public comment. More importantly, virtually every aspect of the 1995 proposal was changed significantly by the 1996 notice, making most of the analyses and conclusions from the 1995 notice irrelevant. Therefore, in today's final rule, HMIWI which commenced construction after June 20, 1996 are considered new sources subject to the NSPS under Subpart Ec, and HMIWI which commenced construction on or before June 20, 1996 are considered existing sources subject to the EG under subpart Ce.

The 1996 re-proposal served as a response to most comments on the 1995 proposed rule. Comments on miscellaneous issues that were not addressed in the 1996 re-proposal notice are summarized and responded to in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). The 1996 re-proposal notice discussed the reanalyses of new information that led to changes in the 1995 proposed standards and guidelines. Presented below is a brief summary of the reanalyses that occurred following the 1995 proposal and a discussion of the EPA's inclinations that were introduced in the 1996 re-proposal.

Following the 1995 proposal, a number of comments were received regarding the EPA's inventory of existing HMIWI. Most commenters felt that the EPA's inventory was inadequate and should be updated. In response to these concerns, the EPA compiled a new inventory of existing HMIWI based on information received from the American Hospital Association, State agencies, HMIWI vendors, commercial medical waste disposal companies, and other stakeholders. After several revisions, the final HMIWI inventory contained approximately 2,400 existing HMIWI.

The Agency also reanalyzed the HMIWI subcategories based on the new information received after the 1995 proposal. In the 1996 re-proposal, the Agency stated that it was inclined to subcategorize the new and existing population of HMIWI into three subcategories based on waste charging capacity: small (≤200 lb/hr), medium (>200 and ≤500 lb/hr) and large (>500 lb/hr). While these subcategories were based on HMIWI size, they also reflect design differences among HMIWI.

Directly related to the issue of subcategorizing HMIWI by size is the question of how to determine HMIWI size in a manner that is consistent, uniform, and applicable to all HMIWI covered under the standards and guidelines. In the 1996 re-proposal, the EPA stated that it was inclined to base HMIWI capacity on either: (1) Volumetric waste burning capacity factors developed using the design heat release rate of the HMIWI and the heat content of medical waste or (2) an enforceable limit that would restrict waste charge rate.

At the time of the 1995 proposal, relatively few emission test reports were available to the EPA from which to draw conclusions regarding the performance capabilities of various air pollution control systems. Many commenters believed that EPA misjudged the performance capabilities of various air pollution control technologies, especially the capabilities of wet scrubbing systems. Following the 1995 proposal, a number of emission test reports were submitted to EPA. The EPA reviewed the data contained in these emission test reports and, as a result, EPA's conclusions regarding the performance capabilities of various air pollution control technologies were revised and presented in the 1996 re-proposal.

As discussed earlier, the new information submitted led to changes to the HMIWI inventory, subcategories, and conclusions about the performance of technology. Because these factors can influence the MACT floors, a review of the MACT floors was conducted. The recalculated MACT floors and the new conclusions regarding the performance capabilities of air pollution control technologies led to new conclusions regarding what technologies HMIWI would have to use to achieve the MACT floors.

In the 1996 re-proposal, the EPA defined regulatory options more stringent than the MACT floors for new and existing HMIWI and presented the impacts of the regulatory options. After reviewing the emissions reductions that could be achieved and the impacts of the regulatory options, the EPA presented its inclinations as to which emission levels the final MACT standards and guidelines might reflect. For new medium and large HMIWI, the EPA stated that it was inclined to adopt emission limits that could be achieved with good combustion followed by a high efficiency wet scrubber and a DI/FF system with carbon (i.e., combined dry/wet scrubber with carbon). The EPA stated that it was inclined to adopt emission limits that could be achieved with good combustion and a moderate efficiency wet scrubber for new small HMIWI and for medium existing HMIWI. For large existing HMIWI, the EPA stated that it was inclined to adopt emission limits that could be achieved with the use of good combustion and a high efficiency wet scrubber. The EPA offered no inclinations for the emission limits for small existing HMIWI. Instead, the EPA discussed the regulatory options and impacts for small existing HMIWI and solicited comments on which emission levels would be suitable for the final guidelines.

Many comments were also received regarding the 1995 proposed testing and monitoring requirements. Commenters noted that the proposed 4-hour test run was much longer than the more conventional test run of about 1-hour. Commenters also noted that many hospitals and health care facilities would normally not have sufficient waste on hand to accommodate three, 4-hour test runs and the 1995 proposed emission testing requirements would substantially increase the costs associated with emission testing. In response to these comments, the EPA stated in the 1996 re-proposal that it was inclined to adopt requirements that EPA test methods be followed when performing emissions testing to determine compliance. This requirement would ensure that compliance testing follows the same procedures used to generate the emission data upon which the emission limits in the regulation were based. In most cases, three test runs of about 1 hour each would be necessary to determine compliance. An exception to this requirement would be emission testing to measure dioxin/furan emissions. The procedures outlined in the EPA test method frequently lead to test runs longer than 1 hour to ensure sufficient sample is gathered to accurately measure dioxin/furan emissions.

Numerous comments were received on the 1995 proposed annual emission testing requirements. While some commenters supported the annual testing requirements, others felt that the proposed requirements for inspections, monitoring, and operator training were sufficient and much less expensive than

annual testing. Some commenters suggested that the annual emission test requirement be replaced with a requirement for annual equipment inspection and maintenance. Many of the commenters supportive of the proposed inspection requirements, however, suggested that the requirement for a "third party" inspection be deleted. Therefore, EPA stated in the 1996 re-proposal that it was inclined to include inspection and maintenance requirements wherever annual stack testing is not required and that the inspection would not have to be conducted by a third party.

To consider comments on the 1995 proposal regarding the frequency of emission testing and the proposed inspection and monitoring requirements, EPA presented a matrix of testing and monitoring options and their associated costs in the 1996 re-proposal. The EPA noted that almost all of the emission testing and monitoring options under consideration cost more than the incinerator or emission control system that would be installed to meet the emission limits in the regulations. Consequently, the Agency stated that it was inclined to include monitoring of operating parameters and routine Method 9 opacity tests (instead of CO and opacity CEMS) in the final regulations to minimize costs.

With regard to specific air pollution control device (APCD) operating parameters to be monitored, the Agency stated that it was inclined to require monitoring of the same parameters as outlined in the 1995 proposal for dry scrubbers, and the following for wet scrubbers: Scrubber exit temperature, scrubber liquor pH, scrubber liquor flow rate, and energy input to the scrubber (e.g., pressure drop or horsepower).

The EPA also stated in the 1996 re-proposal that it was inclined to require initial and repeat stack testing (annual/skip testing) where the regulations are based on good combustion and wet and/or dry scrubbing systems; and initial stack testing and routine inspections where the regulations are based on the use of good combustion alone. With the annual/skip testing requirement, emission tests would be required for the first 3 years. If these tests show that the facility was in compliance each of these 3 years, then subsequent testing would be done every third year. Under the inclinations presented in the 1996 re-proposal, annual or skip emission testing would only require emission testing of a few key or critical pollutants (i.e., only those necessary to gain a good indication that the air pollution control system is operating properly).

A large number of comments were received on the 1995 proposed definition of medical waste. The majority of the commenters stated that the proposed definition of medical waste was too broad and should be narrowed. The commenters believed that the proposed definition would be adopted by other regulatory agencies, and as the definition became more widespread, that it would eventually force all health care facilities to handle most of their waste as if it were infectious. This would result in an increase in the volume of medical waste requiring special handling, which in turn would result in increased costs to dispose of waste from health care facilities. These commenters stated that health care facilities should be viewed as generating two waste streams: A medical waste stream, which is usually defined by the potential for disease transmission and requires special handling; and a noninfectious waste or "health care trash" waste stream, which has no potential for infection and is treated and handled as municipal waste. The commenters urged EPA to narrow the definition of medical waste used in the HMIWI regulations to one that includes only the infectious portion of the waste stream.

In response to the comments concerning the 1995 proposed definition of medical waste, the EPA stated in the 1996 re-proposal that it was inclined to adopt a definition of medical waste that focuses on the infectious or potentially infectious portion of the overall medical waste stream. Given the confusion and number of varying definitions of medical waste in use at the Federal, State and local levels, the EPA stated that it was inclined to adopt a definition of medical waste for the HMIWI regulations from among those definitions already in use. Specifically, the EPA stated that it was inclined to adopt the New York State Department of Health (NYSDOH) definition of medical waste.

In the 1996 re-proposal, the EPA also stated that it was inclined to exclude crematories and incinerators used solely for burning pathological waste (human or animal remains and tissues), incinerators used solely for burning "off-spec" or "out of date" drugs or pharmaceuticals, and incinerators used solely for burning radioactive-type medical wastes from the HMIWI regulations. The EPA further stated that it was inclined to adopt separate regulations for pyrolysis treatment technologies and requested comment on the merits of continued development of separate pyrolysis regulations.

*F. Stakeholders and Public Involvement*

Throughout the development of the standards and guidelines, EPA conducted meetings with stakeholders to explain EPA conclusions and solicit comments, data, and information. Numerous discussions were held with governmental entities, industry representatives, and environmental groups including, but not limited to, the following: the U.S. Conference of Mayors; the National League of Cities; the National Association of City and County Health Officials; the National Association of Counties; the National Association of Public Hospitals; the Department of Defense; the Department of Veterans Affairs; the American Hospital Association; the Medical Waste Institute; the Sierra Club; the Natural Resources Defense Council; vendors of pyrolysis units, HMIWI, continuous emission monitoring systems, and air pollution control technologies; and the general public.

The standards and guidelines being adopted today were first proposed in the **Federal Register** on February 27, 1995 (60 FR 10654). The preambles for the 1995 proposed standards and guidelines described the rationale for the proposed standards and guidelines. Following the 1995 proposal, the EPA provided interested persons the opportunity to comment through a written comment period and held a public hearing. The public comment period lasted from February 27, 1995 to April 28, 1995 and all late comments were accepted. Over 700 comments were received from private citizens, industry representatives, environmental groups, and governmental entities. Several public meetings and meetings with industry stakeholders were held following the 1995 proposal to discuss EPA's assessment of new information submitted with comments, to gather additional information, and to solicit further comments. As discussed above in sections II.D and II.E, the comments and new information received following the 1995 proposal led to numerous changes to the standards and guidelines.

On June 20, 1996, EPA re-proposed the standards and guidelines in the **Federal Register**. Following the 1996 re-proposal, the EPA held a public meeting to review the contents of the re-proposal and to answer questions so that interested parties could better prepare their written comments. The comment period remained open from June 20, 1996 until August 8, 1996. Again, late comments were accepted. Nearly 70 comments were received. The comments received following the 1996 re-proposal were carefully considered

and changes were made to the HMIWI standards and guidelines where appropriate. Sections III, IV, and V of this preamble discuss the responses to comments on the standards and guidelines that address the major concerns of the commenters on the 1996 re-proposal.

## III. Considerations in Developing the Final Standards and Guidelines

Following the June 20, 1996 re-proposal, the EPA received numerous comments concerning applicability of the standards and guidelines, pollution prevention, and the testing and monitoring requirements. Special consideration was given to these issues when developing the final HMIWI standards and guidelines. This section discusses these issues and changes, if any, that were made to the final HMIWI standards and guidelines following the 1996 re-proposal. Additional discussion and responses to specific concerns regarding these and other issues are provided in "Hospital/Medical/ Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/ R–97–006b).

### *A. Applicability*

A great deal of interest and discussion has taken place regarding which incinerators should be subject to this rule and which should not. All comments have been considered and the following sections present EPA's final decisions.

#### 1. Definition of Medical Waste

This section discusses the evolution of the definition of medical waste used in determining the applicability of the HMIWI standards and guidelines. In the 1996 re-proposal "medical waste" was the term used to describe what is today called "medical/infectious waste" in the final HMIWI standards and guidelines. Similarly, the term "medical waste incinerator" or "MWI" was used to describe what is called "hospital/ medical/ infectious waste incinerator" or "HMIWI" in the standards and guidelines promulgated today.

Section 129 of the CAA directs the EPA to adopt regulations for solid waste incineration units that combust "hospital waste, medical waste, and infectious waste." Section 129(g)(6) states that the term "medical waste" shall have the meaning "established by the Administrator pursuant to the Solid Waste Disposal Act." For the 1995 proposed air emission standards and guidelines for "MWI," EPA adopted the definition of "medical waste" from the solid waste regulations codified in 40 CFR part 259, subpart B. As a result, medical waste was defined broadly as any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. The broad definition of medical waste in the 1995 proposal was not intended to be used to identify "infectious" or "potentially infectious" items in the health care waste stream. The EPA's only intention was to define those items likely to be burned in an "MWI" for the sake of defining and regulating the air emissions from incinerators used to burn "hospital waste, medical waste, and infectious waste."

As discussed earlier, the majority of the comments on the 1995 proposed definition of medical waste stated that the proposed definition was too broad and should be narrowed. Consequently, the 1996 re-proposal announced EPA's inclination to adopt an existing and more narrow definition of medical waste for the purpose of regulating "MWI." Specifically, the EPA stated that it was inclined to adopt the definition of medical waste created by the New York State Department of Health (NYSDOH). While inclined to adopt the NYSDOH definition, the EPA stated in the 1996 re-proposal that it was also considering definitions of medical waste adopted by other regulatory agencies and national associations as well as the 1995 proposed definition. The EPA solicited public comment on the merits of each definition as well as other definitions EPA should consider.

Following the 1996 re-proposal, several commenters supported a definition of medical waste that is limited to potentially infectious materials and several commenters agreed that the NYSDOH definition of medical waste is appropriate. Other commenters suggested that the EPA Office of Solid Waste (OSW) definition of regulated medical waste (RMW) is more appropriate than the NYSDOH definition because Congress intended for EPA to use the Solid Waste Disposal Act (SWDA) definition.

On the other hand, several commenters argued that a broad definition of medical waste is appropriate. The commenters stated that anything burned in an incinerator at a health care facility should be classified as medical waste and pointed out that the CAA requires EPA to regulate emissions from solid waste incineration units "combusting hospital waste, medical waste and infectious waste." The commenters contended that facilities operating onsite incinerators would use them primarily for noninfectious waste, which produces emissions similar to medical waste when burned.

The EPA has concluded that the Medical Waste Tracking Act (MWTA) definition of regulated medical waste is the most appropriate definition of medical/infectious waste for the final HMIWI standards and guidelines. As noted in the proposal and re-proposal, the EPA considered several definitions for purposes of these regulations (e.g., OSHA, NYSDOH, MWTA, AHA). Although the various definitions are not identical, they cover many of the same materials. After considering the comments received, the EPA today is promulgating the MWTA definition under the co-authority of section 2002 of the SWDA, 42 U.S.C. 6912, and sections 129 and 301 of the CAA, 42 U.S.C. 7429 and 7601.

The EPA believes the MWTA definition is the most appropriate because it includes the materials of concern, and will lead to the least confusion in the regulated community because it is a familiar definition. In addition, the MWTA definition has undergone public comment at the Federal level, during both the rulemaking under the MWTA, as well as rulemaking on these regulations. The EPA emphasizes that the MWTA definition being promulgated today is solely for purposes of determining which incineration units are covered by the HMIWI regulations under section 129 of the CAA. It is not for purposes of determining applicability of SWDA requirements. THE MWTA definition, however, does not include hospital waste; thus, EPA also is promulgating today under authority of sections 129 and 301 of the CAA, 42 U.S.C. 7429 and 7601, a definition of hospital waste.

The MWTA differentiates between infectious and noninfectious wastes. The MWTA definition of RMW includes seven classes of waste which are very similar to the classes of infectious waste included in the NYSDOH definition. However, the MWTA definition of RMW is broader than the NYSDOH definition of medical waste because the MWTA definition includes some items (e.g., intravenous bags) which may not be infectious, but are aesthetically unpleasing. The MWTA definition does not include hazardous waste; household waste; ash from incineration of medical/ infectious waste; human corpses, remains, and anatomical parts intended for interment or cremation; or domestic sewage materials.

The EPA recognizes that the MWTA definition does not fully encompass the terms "hospital waste, medical waste, and infectious waste." The MWTA definition, as well as other definitions considered for the final HMIWI regulations, cover "medical waste and infectious waste," but do not cover "hospital waste." Commenters are correct in pointing out that the emissions from combustion of hospital waste are very similar to emissions from the combustion of medical/infectious waste. Therefore, the final HMIWI standards and guidelines contain definitions for "hospital" and "hospital waste" and the definition of "medical/infectious waste" (MWTA definition). The definitions of "hospital" and "hospital waste" will subject incinerators located at hospitals to the final standards and guidelines, whether they burn "infectious" waste, "noninfectious" waste, or a combination.

Commenters on the 1995 proposed regulations stated there are very few, if any, incinerators that are used by hospitals to burn only noninfectious hospital trash. Consequently, this inclusion of "hospital waste" along with "medical/infectious waste" should: minimize the concern about the overly broad definition of medical waste; cover the same incinerators as envisioned in the 1995 proposal and 1996 re-proposal, resulting in the same emission reductions without imposing additional costs; and satisfy the CAA requirement to regulate solid waste incinerators combusting "hospital waste, medical waste, and infectious waste." On the other hand, section 129 directs EPA to develop regulations for four categories of solid waste incinerators. Because municipal waste combustors (MWC), industrial/commercial waste incinerators, and other solid waste incinerators sometimes burn small amounts of hospital waste and/or medical/infectious waste, and because these other categories are already or will be subject to section 129 regulations, the final HMIWI regulations focus on incinerators whose primary purpose is the disposal of hospital waste and/or medical/infectious waste in an effort to avoid duplicative requirements. Combustors subject to subparts Ea, Eb, or Cb (the NSPS and EG for MWC larger than 250 tons per day) have been excluded from coverage under the HMIWI regulations. In addition, any incinerator which burns 10 percent or less by weight hospital waste and medical/infectious waste is not subject to the final HMIWI standards and guidelines. This 10 percent provision is discussed further in section A.2 "Co-fired Combustors" (below).

The primary purpose of the MWTA definition of medical waste as used for the HMIWI standards and guidelines is to define items combusted in an HMIWI, and not to define items which could transmit disease. Only a small fraction of "medical/infectious" waste is truly "infectious." The EPA believes that to add or remove specific items to or from the MWTA definition, as suggested by some commenters, would create additional regulatory confusion because the revised definition would essentially become a new definition of medical waste if altered. Any waste excluded from the MWTA definition is either covered now or will be covered in the future by other solid waste incinerator regulations.

The final standards and guidelines will apply to hospital/medical/infectious waste incinerators. It should be noted that the definition of medical/infectious waste adopted for the HMIWI regulations is not the government-wide Federal definition, or even the Agency-wide EPA definition of infectious waste. The medical/infectious waste definition contained in the final regulations promulgated today is for use in determining applicability of the HMIWI standards and guidelines only. It should also be noted that "hospital waste" is simply waste generated at a hospital. Most of the waste generated at a hospital (85 to 90 percent or more) is simply municipal-type waste that may be recycled or disposed without special treatment. The use of the term "hospital waste" in these regulations is for use in determining applicability of the HMIWI standards and guidelines only.

2. Co-fired Combustors

In the 1996 re-proposal, the EPA provided no inclinations regarding the applicability of the HMIWI regulations to combustors that co-fire medical waste with other fuels or wastes. Some examples of units that might be used to co-fire medical waste along with other fuels or wastes include municipal waste combustors (MWC), boilers, and industrial/commercial waste incinerators. During the public comment period following the 1996 re-proposal, several comments were received questioning the applicability of the HMIWI regulations to units that co-fire medical waste with other fuels or wastes.

One commenter provided information on a circulating fluidized bed combustor (CFBC) steam plant which co-fires coal and medical waste. The commenter noted that traditional HMIWI burn materials with low sulfur content and that the proposed $SO_2$ emission limit was arbitrarily set higher than actual HMIWI emissions. The commenter requested that the $SO_2$ emission limit be raised to 100 ppm to accommodate the CFBC without affecting other incinerators that burn medical waste.

Other commenters requested that "potentially infectious" medical waste and "off-spec" or "out-of-date" pharmaceuticals be allowed to be combusted in MWC along with municipal solid waste (MSW) without subjecting MWC to the HMIWI rules. The commenters noted that MWC which co-combust municipal and medical waste are regulated under the MWC emission standards. The commenters recommended that an exclusion be written into the final rule that will allow MWC combusting a minimal amount of medical waste (up to 10 percent of the waste stream) to be excluded from the HMIWI rule. The commenters suggested that, if EPA feels that co-combustion of MSW and medical waste in a small MWC not covered under the MWC standards is an environmental threat, that co-combustion should not be allowed in MWC burning less than 40 tons per day. Other commenters stated that small MWC not regulated under the MWC standards should not be allowed to accept medical waste without complying with the HMIWI regulations.

Other commenters requested that a "de minimis" quantity exemption be allowed for facilities that incinerate insignificant quantities of medical waste. Some commenters requested that clinical waste in the amount of 5 to 10 percent of the total waste stream be allowed to be disposed of in a pathological waste incinerator.

Section 129 requires the EPA to develop NSPS and EG for MWC, HMIWI, industrial/commercial waste incinerators, and "other" solid waste incinerators. The final NSPS and guidelines applicable to MWC with capacities of greater than 40 tons/day were promulgated in December 1995, but have since been partially vacated and remanded. In this case, it is not the EPA's intent for MWC to be dually covered under both the MWC regulations and the HMIWI regulations. Therefore, combustors subject to Subparts Ea, Eb, or Cb (the NSPS and EG for MWC larger than 250 tons/day) have been excluded from coverage under the HMIWI regulations regardless of the amount of hospital waste or medical/infectious waste combusted. As regulations are developed under Section 129 for the other categories of solid waste incinerators, EPA will make clear which regulations apply to which incinerators. In some cases, incinerators

may be subject to more than one regulation.

Commenters requesting that MWC, boilers, and other industrial processes that co-fire medical waste be exempted from coverage under the HMIWI regulations generally seem to agree that these units combust no more than 10 percent hospital waste and/or medical/infectious waste. Therefore, the final HMIWI NSPS and guidelines contain the provision that any incinerator or industrial process that combusts less than or equal to 10 percent hospital waste and medical/infectious waste (by weight) is not subject to the HMIWI NSPS and guidelines provided that the facility notifies the Administrator of an exemption claim and maintains records of the amount of hospital waste, medical/ infectious waste, and other fuels or wastes combusted.

As discussed in section A.3 "Waste Types" (below), "off-spec" or "out-of-date" drugs are not considered to be medical/infectious waste as defined in the final HMIWI regulations and are not considered to be hospital waste, unless disposed with the hospital's waste. "Off-spec" or "out-of-date" drugs are viewed the same as other fuels or wastes (e.g., municipal waste, coal, etc.) under HMIWI regulations. Therefore, incinerators that combust waste pharmaceuticals (i.e., "off-spec" or "out-of-date" drugs), and combust 10 percent or less hospital waste and medical/infectious waste (by weight) are not subject to the HMIWI regulations. However, any incinerator that combusts waste pharmaceuticals along with more than 10 percent hospital waste and medical/infectious waste is subject to the HMIWI regulations.

As also discussed in section A.3 "Waste Types" (below), pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "excluded" wastes. While these wastes sometimes meet the definition of hospital waste or medical/infectious waste, they are viewed the same as "other" fuels or wastes (e.g., municipal waste, coal, etc.) when calculating the amount of hospital waste and medical/infectious waste burned in a co-fired combustor. For example, a combustor burning 90 percent pathological waste with 10 percent hospital waste is a co-fired combustor, even if the pathological waste meets the definition of medical/infectious waste. However, any incinerator that combusts pathological, chemotherapeutic, and/or low-level radioactive waste along with more than 10 percent of other materials meeting the definition of hospital waste and/or medical/infectious waste is subject to the HMIWI regulations.

While incinerators that burn 10 percent or less hospital waste and medical/infectious waste are excluded from the HMIWI regulations, this exclusion does not mean that EPA will not develop regulations which will cover these units in the future. The NSPS and EG that were recently remanded for MWC with capacities between 40 tons/day and 250 tons/day will be revised and repromulgated. Furthermore, the CAA directs the EPA to develop regulations for all solid waste incinerators, including MWC with capacities less than 40 tons/day. The EPA has announced that regulations for other solid waste incinerators will be developed by the year 2000. Thus, burning of hospital waste or medical/infectious wastes in other solid waste incineration units will be covered by regulations developed within the next few years. Exclusion of incinerators that burn small amounts of hospital waste or medical/infectious waste from the HMIWI regulation is only a temporary deferment from regulation if these units are not presently regulated under section 129.

3. Waste Types

In the 1996 re-proposal, the EPA stated that it was inclined to exclude crematories and incinerators used solely for burning pathological waste from coverage under the HMIWI regulations. The EPA also stated that it was inclined to exclude incinerators used solely for burning low-level radioactive waste or "off-spec" and "out-of-date" pharmaceuticals. This section discusses the major public comments received regarding exemption of specific wastes from the HMIWI standards and guidelines.

Several commenters requested that crematories and incinerators used solely for burning pathological waste be excluded from the HMIWI regulation. One commenter questioned whether animal waste is to be included, excluded, or partially excluded from the regulation. Another commenter stated that there are no effective alternative disposal options for pathological waste, especially for large domestic animal carcasses (i.e., cows and horses). Several commenters also requested that incinerators used to burn only "off-spec" and "out-of-date" drugs or low-level radioactive waste be excluded from the regulation. One commenter stated that crematories and incinerators used to burn drugs, low-level radioactive waste, and pathological waste are already covered under other regulations, or will be covered under regulations developed through EPA's Industrial Combustion Coordinated Rulemaking (ICCR) project. Other commenters urged EPA to exclude units permitted under section 3005 of the SWDA from the HMIWI rule. One commenter argued that section 129 of the CAA statutorily prohibits EPA from regulating in the HMIWI rule hazardous waste combustion units which are to be regulated under the Resource Conservation and Recovery Act (RCRA).

Pathological waste, low-level radioactive waste, and chemotherapeutic waste are different from most hospital waste and medical/infectious waste and are often burned in incinerators which burn these wastes exclusively. While these wastes often times meet the definition of hospital waste or medical/infectious waste, the combustion of these materials warrants separate consideration. Pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "excluded" wastes, regardless of whether the waste meets the definition of hospital waste or medical/infectious waste in the HMIWI regulations. Consequently, in determining the amount of hospital waste and medical/infectious waste burned in a co-fired combustor, these "excluded" wastes are included in the calculation as "other" wastes (they do not count toward the 10 percent hospital waste and medical/infectious waste), as discussed above in section A.2. In addition, incinerators that are otherwise subject to the HMIWI regulations are exempt during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned. These latter units must keep records of the periods of time when only pathological, chemotherapeutic, and low-level radioactive wastes are burned.

With regard to crematories, human remains intended for interment or cremation are not hospital waste or medical/infectious waste. Consequently, crematories are not subject to the HMIWI regulations unless they burn waste that meets the definition of hospital waste or medical/infectious waste.

While pathological incinerators, chemotherapeutic and low-level radioactive waste incinerators, and crematories are excluded from the final HMIWI standards and guidelines, this exclusion does not mean that EPA will not develop regulations which will cover these incinerators in the future. The CAA directs the EPA to develop regulations for all solid waste incinerators. The EPA is developing separate regulations which will cover these units as part of the "other" category of solid waste incineration

units within the ICCR project. The EPA has announced that regulations for other solid waste incinerators will be developed by the year 2000. Thus, cremation and burning of pathological, chemotherapeutic, and low-level radioactive wastes will be covered by regulations developed within the next few years. Exclusion of crematories and incinerators burning pathological, chemotherapeutic, and low-level radioactive waste from the HMIWI regulation is only a temporary deferment.

Pharmaceutical wastes such as "off-spec" or "out-of-date" drugs are not considered to be medical/infectious waste as defined in the final HMIWI regulations. Also, pharmaceutical wastes are not considered to be hospital waste unless generated at a hospital and disposed with the hospital's waste. In the HMIWI regulations "hospital waste" is defined as discards generated at a hospital, excluding human remains and unused items returned to the manufacturer. Thus, "out-of-date" drugs returned by a hospital to a pharmaceutical company for disposal are not considered hospital waste. Waste pharmaceuticals are viewed the same as other fuels and wastes (e.g., municipal waste, coal, etc.) under the HMIWI regulations. Therefore, incinerators that combust waste pharmaceuticals, and combust 10 percent or less hospital waste and medical/infectious waste (by weight) are not subject to the HMIWI regulations. However, any incinerator that combusts waste pharmaceuticals along with more than 10 percent hospital waste and medical/infectious waste is subject to the HMIWI regulations.

Section 129(g)(1) of the CAA specifically exempts from the HMIWI NSPS and guidelines solid waste incinerators required to have a permit under section 3005 of the SWDA. To be consistent with section 129, the final HMIWI standards and guidelines specifically exempt incinerators permitted under section 3005 of the SWDA. In addition, the definition of medical/infectious waste in the final regulations specifically excludes hazardous waste identified or listed under the regulations in 40 CFR Part 261.

4. Cement Kilns

Some commenters pointed out that section 129 clearly addresses incinerators, not cement kilns. Commenters stated that HMIWI and cement kilns using medical waste as fuel are two completely different devices and should not be confused with each other or regulated under the same air emissions control standards. One commenter recommended that if EPA concludes that Congress intended to regulate cement kilns under section 129, EPA should not impose emission limitations and other requirements that were written for HMIWI on cement kilns.

The EPA disagrees with commenters that contend EPA has no authority to regulate cement kilns under section 129. Section 129(a)(1)(A) requires the Administrator to establish performance standards and other requirements for each category of solid waste incineration units. Congress specifically listed in section 129 various categories of solid waste incineration units that EPA must regulate. Section 129(g)(1) broadly defines solid waste incineration unit as "a distinct operating unit of *any* facility which combusts *any* solid waste material * * *" (emphasis added). This definition clearly indicates Congress' intent to regulate more than just incinerators because the definition sweeps within its scope any facility that is combusting any solid waste material.

Further evidence of EPA's authority to regulate cement kilns under section 129 is presented in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). However, the EPA does recognize that cement kilns are different from HMIWI in size, design, and operation. Accordingly, the EPA is not regulating cement kilns under this regulation, but instead, is determining whether separate regulations under section 129 are appropriate for cement kilns combusting solid waste materials.

*B. Pyrolysis Units*

In the 1996 re-proposal, the EPA stated that it was considering a separate regulation for pyrolysis units that would look very similar to the HMIWI regulation in that it would contain definitions, emissions limitations, monitoring and testing requirements to demonstrate compliance, and reporting and recordkeeping requirements. However, the separate pyrolysis regulation would differ from the HMIWI regulations in that some definitions would be different, the emission limitations would, in many cases, be more stringent than the HMIWI regulations, and the monitoring and testing requirements would reflect the operating parameters that are unique to pyrolysis systems.

Following the 1996 re-proposal, several commenters encouraged EPA to promulgate separate standards for medical waste pyrolysis (MWP) units. One commenter noted that separate regulations would contain emission limits more stringent than the HMIWI regulations and reflect the unique features of pyrolysis units.

Other commenters suggested that EPA modify the 1995 proposed HMIWI regulations to include pyrolysis units and defer the final promulgation of separate pyrolysis regulations. The commenters stated that variations in the operating characteristics among pyrolysis technologies would make separate pyrolysis regulations unwieldy to implement at this time. The commenters requested that EPA modify the HMIWI regulations to provide flexibility if a specific operator training, siting, performance verification, compliance verification, monitoring, recordkeeping or reporting requirement does not directly apply to a pyrolysis system.

Other commenters stated that pyrolysis units are similar to conventional incinerators and requested that they be included under the HMIWI regulations. The commenters stated that, if EPA regulates pyrolysis units separately, that MACT floor levels should be based on available test data, and the pyrolysis regulation should be issued concurrently with the final HMIWI regulations.

The various arguments for and against developing separate regulations for pyrolysis units lead to three options for developing regulations for pyrolysis units: (1) Regulate pyrolysis under the standards and guidelines being promulgated today; (2) exempt pyrolysis units from the HMIWI regulations and simultaneously promulgate separate regulations for pyrolysis units; and (3) exempt pyrolysis units from the HMIWI regulation and defer the development of separate regulations.

Pyrolysis technology is different from conventional incineration. Because air is generally not used in the pyrolysis treatment process, the volume of exhaust gas produced from pyrolysis treatment is likely to be far less than the volume of gas produced from the burning of waste in an HMIWI. Although conventional combustion does not occur during pyrolysis treatment, there are some emissions from the pyrolysis process.

As discussed in the 1996 re-proposal, the EPA developed a draft regulation for pyrolysis units. The 1996 re-proposal pointed out that the draft regulatory text was incomplete and it included placeholders and requests for information where such information was lacking. The EPA requested

comments to help fill in the missing information.

Following the 1996 re-proposal, the EPA received information for use in developing the separate pyrolysis regulation from vendors of pyrolysis technology. As pointed out by one commenter and supported by the information received from pyrolysis vendors, there are variations in the operating characteristics among pyrolysis technologies that would make separate regulations for pyrolysis units very difficult to implement at this time. As a result, the EPA has concluded that sufficient information is not available to develop a separate and uniform regulation for pyrolysis technology that would contain requirements that are technically feasible for all pyrolysis units.

Because separate regulations for pyrolysis technology cannot be developed at this time, the EPA considered modifying the HMIWI regulations to include pyrolysis units. However, nearly all aspects of the HMIWI regulations would have to be altered to accommodate pyrolysis units including the format of the emission limits, the operator training requirements, siting requirements, the testing and monitoring requirements, and the reporting and recordkeeping requirements. Furthermore, the HMIWI subcategories and MACT floors would not be appropriate for pyrolysis units. Due to variations in the operating characteristics of pyrolysis technologies and the differences between HMIWI and pyrolysis technologies, it is unclear how the HMIWI regulations could be modified to feasibly cover pyrolysis technologies as well as HMIWI.

Section 129 requires EPA to develop NSPS and EG for "solid waste incineration units * * * combusting hospital waste, medical waste, and infectious waste." As discussed above, pyrolysis and conventional incineration are not the same. Because regulations developed for HMIWI are not appropriate for pyrolysis technologies, pyrolysis treatment technologies have specifically been excluded from coverage under the final HMIWI standards and guidelines. The EPA may consider these devices in future regulatory development.

*C. Waste Management Plans*

During the public comment period following the 1996 re-proposal, several commenters stated that the EPA standards for HMIWI are reliant on pollution control and give little attention to pollution prevention. The commenters stated that recycling and pollution prevention measures could yield greater reductions in emissions than add-on controls alone. Some commenters stated that Congress intended for EPA to use process changes or substitution of materials to help eliminate emissions. Some commenters stated that dioxin/furan, HCl, and Hg emissions could be controlled through a pollution prevention program that reduces or eliminates incineration of chlorinated materials and batteries. One commenter requested that EPA suggest pollution prevention measures for controlling Hg as well as other pollutant precursors (i.e., lead, cadmium, chlorine, nitrogen, fluorine, and sulfur). The commenter maintained that the economic impact of the HMIWI regulations could be reduced significantly if EPA required medical facilities to institute pollution prevention techniques.

The types of materials sent to an HMIWI vary from facility to facility depending on facility operating practices, which are defined by purchasing decisions, waste handling procedures, and other practices that affect the types of materials incinerated.

In the February 1995 proposal, the EPA stated that it had no data to indicate the effects of waste handling practices on emissions of various pollutants and requested comments on the extent to which operating practices could influence emissions. To evaluate the effectiveness of waste segregation programs, the EPA specifically solicited detailed descriptions of programs and results of performance tests conducted to demonstrate pollutant emission levels from the HMIWI prior to implementation of the program and subsequent to implementation of the program. In addition, the EPA solicited comments on how such a program could be incorporated into the HMIWI regulations.

Following the 1995 proposal, the EPA received no data to conclusively indicate the effectiveness of waste segregation programs in reducing emissions from HMIWI. Therefore, the final HMIWI standards and guidelines are primarily based on air pollution controls rather than pollution prevention. However, as discussed in the 1996 re-proposal, EPA has included pollution prevention measurements in setting the Hg emission limit for good combustion. To ensure that emissions of Hg from facilities with good combustion controls meet the final emission guidelines for Hg, EPA is requiring that these facilities conduct a Hg emission test. If the facility fails the emission test, the facility will need to implement Hg pollution prevention measures or install an APCD to meet the emission limits.

The EPA has investigated the impacts on emissions of shifting the waste composition from chlorinated plastics to non-chlorinated polymers. However, the outcome of this investigation is inconclusive. A number of studies have concluded that the chlorine content of the waste is directly related to dioxin/furan emissions, while other studies suggest there is no relationship between the chlorine content of the waste and dioxin/furan emissions. At this point, the effectiveness of a pollution prevention program directed at reducing dioxin/furan emissions through shifting the waste composition from chlorinated plastics to nonchlorinated polymers would be questionable.

A number of health care facilities have implemented waste management measures to reduce the overall volume of waste. However, it should be stressed that each health care facility is unique and site-specific strategies must be developed that achieve the most efficient results. Through the development of individual waste management programs, health care facilities can achieve significant reductions in their waste stream, reduce the volume of waste to be incinerated, and thereby reduce the amount of air pollution emissions associated with that waste. Therefore, the final HMIWI standards and guidelines require that health care facilities which operate incinerators develop and implement a waste management plan.

The waste management plan would identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. The waste management plan may include elements such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. A copy of the waste management plan would be submitted to EPA along with the results of the initial performance test demonstrating compliance with the emission limits. In addition, the waste

management plan may be reviewed by the Joint Commission on Accreditation of Health Care Organizations during the accreditation process.

Health care facilities are encouraged to review and incorporate into their waste management plans the waste minimization techniques discussed in "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities," which is published by the American Society for Health Care Environmental Services of the American Hospital Association. This document may be obtained by contacting AHA Services, Inc., P.O. Box 92683, Chicago, Illinois 60675–2683, or by calling 800–242–2626. The cost of the document is $50.00 plus $10.95 for shipping and handling. The document is available for public inspection at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, item IV–J–124). See the ADDRESSES section at the beginning of this preamble for the location of the Docket. Note that because of copyright law, this document may not be copied. This document was approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

*D. Testing, Monitoring, and Inspection*

Section 129(c) of the CAA requires the EPA to include emissions monitoring and testing requirements in the regulation. The purpose of these requirements is to allow the EPA to determine whether a source is operating in compliance with the regulations.

In the 1996 re-proposal, the EPA stated that it was inclined to adopt requirements that EPA test methods be followed when performing any emission testing required to determine compliance with the HMIWI regulations. In most cases, three test runs of about 1 hour each would be necessary to determine compliance. The EPA also stated in the 1996 re-proposal that it was inclined to include in-house inspection and maintenance requirements wherever annual stack testing was not required. To minimize costs, the EPA stated that it was inclined to include requirements for monitoring of operating parameters and routine Method 9 (stack opacity) testing in the final regulations instead of CO and opacity continuous emissions monitoring systems (CEMS) for onsite HMIWI. Where the regulations are based on wet and/or dry scrubbing systems, the EPA stated that it was inclined to require initial and repeat stack testing (annual/skip testing where annual testing is required for the first 3 years and, if these tests show compliance, subsequent testing would be done every third year). Where the regulations are based, in part, on the use of good combustion alone, the EPA stated that it was inclined to require initial stack testing and routine inspections. The EPA solicited public comment on all of the testing and monitoring inclinations presented in the 1996 re-proposal. In addition, because some CEMS vendors questioned the CEMS and parameter monitoring costs developed by EPA, the EPA solicited public comment on the costs of CEMS and monitoring of operating parameters.

Several comments concerning the EPA's inclinations for monitoring and testing were received following the 1996 re-proposal. One commenter requested that EPA require CEMS for CO, HCl, $SO_2$, $NO_X$, Hg, and PM. The commenter contended that CEMS for CO, HCl, $SO_2$, $NO_X$, Hg, and PM would eliminate the need for stack testing. The commenter stated that the only way to ensure compliance at all times, as mandated by the CAA, is through the continuous use of CEMS. One commenter stated that EPA should require continuous monitoring of CO emissions from all HMIWI, continuous opacity monitoring at large incinerators, and continuous monitoring of HCl emissions from very large (>1000 lb/hr) incinerators. The commenter indicated that continuous monitoring of CO and $O_2$ is the only way to ensure that good combustion is occurring. The commenter concluded that CO and $O_2$ "process" monitors should be sufficient for HMIWI with capacities less than 500 lb/hr. The commenter stated that EPA's inclination not to require continuous monitoring is based on inaccurate CEMS costs.

A number of commenters supported EPA's inclination to determine compliance using parameter monitoring and routine inspection and maintenance rather than CEMS. One of the commenters supported monitoring of operating parameters and routine Method 9 testing combined with initial stack testing and annual inspections to ensure compliance with the rule. Another commenter stated that an initial stack test for the primary pollutants and regular inspection, maintenance, and daily recording of operating parameters would be appropriate. One commenter stated that monitoring of operating parameters with no CEMS and substitute stack testing with annual inspections would provide an excellent means to attain low emissions for minimal costs for small HMIWI. Other commenters recommended monitoring operating parameters and routine Method 9 testing with initial stack testing and no repeat testing. Another commenter suggested that an initial performance test and monitoring is sufficient and that additional tests are not necessary especially given operator training, inspections, and monitoring.

The most direct means of ensuring compliance with emission limits is the use of CEMS. As a matter of policy, the first and foremost option considered by EPA is to require the use of CEMS to demonstrate continuous compliance with specific emission limits. Other options are considered only when CEMS are not available or when the impacts of including such requirements are considered unreasonable. When monitoring options other than CEMS are considered, there is always a tradeoff between the cost of the monitoring requirement and the quality of the information collected with respect to determining actual emissions. While monitoring of operations (operating parameters) cannot provide a direct measurement of emissions, it is usually much less expensive than CEMS, and the information provided can be used to ensure that the incinerator and associated air pollution control equipment are operating properly. This information provides EPA and the public with assurance that the reductions envisioned by the regulations are being achieved.

For the 1996 re-proposal, testing and monitoring costs were developed for a range of options, and the Agency concluded that the cost of CEMS were unreasonably high relative to the cost of the incinerators and air pollution control systems needed for compliance. Based on comments and information received as a result of the 1996 re-proposal, the cost estimates for CEMS and parameter monitoring have been revised. While the cost estimates for CEMS have been significantly reduced and additional costs have been included for parameter monitoring, it appears that the annual costs of monitoring requirements which include CEMS are still quite high compared to the cost of the incinerator and air pollution control device required to meet the emission limits.

A large HMIWI costs approximately $120,000/yr to operate, while an add-on APCD can cost from $150,000 to $300,000/yr to operate. The most comprehensive monitoring option including CEMS for HCl and CO costs about $95,000/yr. This option costs nearly as much to operate as the incinerator itself and could represent as much as half the cost of the APCD. In addition, the only emissions that are directly measured are HCl and CO. Consequently, the most comprehensive

monitoring option that could be selected for large HMIWI is considered unreasonable.

There are no direct measurements of dioxin/furan or toxic metals. Particulate matter and Hg CEMS are currently under development but have not been demonstrated in the United States to be capable of accurately and reliably measuring PM or Hg emissions for use in determining compliance with PM or Hg emission limits at this time. With regard to $SO_2$ and $NO_X$, the emission limits in the final regulations reflect uncontrolled emissions. Therefore, it is unreasonable to impose a cost (of monitoring) where no emission reduction benefit will be gained.

Looking at other options for large HMIWI, the only CEMS available are $CO/O_2$ and opacity. For a large HMIWI equipped with a sophisticated APCD like a wet scrubber, dry scrubber, or combined dry/wet scrubber, these CEMS provide very little information regarding the pollutants that are of most concern to the public (i.e., dioxin/furan and toxic metals). Consequently, because the APCD already represents a substantial increase in the cost of incineration and because the more comprehensive monitoring options do not provide much information regarding the pollutants of most concern, the final monitoring and testing requirements for HMIWI equipped with APCD reflect routine stack testing coupled with continuous monitoring of operating parameters.

Where incinerators are not equipped with add-on air pollution control (i.e., units utilizing good combustion alone), EPA agrees with commenters that CO provides the best measure of good combustion. However, regulations based on good combustion alone only apply to small existing HMIWI meeting certain "remote" criteria (see section V.B). For these small existing HMIWI using only good combustion, the incinerator costs about $35,000/yr to operate and the air pollution control costs about $10,000/yr to operate. Monitoring options including CO CEMS for compliance are clearly unreasonable at about $54,000/yr (five times the cost of the air pollution control). The monitoring option which includes a CO "process" monitor costs about $17,000/yr while the option that relies on operating parameters costs about $10,000/yr. The EPA does not believe that the CO "process" monitor provides enough additional information to justify the $7,000/yr additional cost, especially considering that the air pollution control only costs $10,000/yr. Consequently, where the regulations are based on good combustion alone, the monitoring requirements consist of an initial stack test coupled with continuous monitoring of operating parameters and annual inspections.

The specific values for operating parameters are chosen by the owner or operator and are established during the initial performance test demonstrating compliance with the emission limits. After the performance test, monitoring of the operating parameters is the only way to determine, on a continuous basis, whether the source is operating in compliance. Operation outside the bounds of an established operating parameter is a violation of an operating parameter limit. In addition, under certain conditions, operation outside the bounds of one or more parameter limits constitutes a violation of a specific emission limit. This latter provision was included in the 1995 proposed regulations and is retained in the final regulations. The owner or operator has the flexibility to choose the values for the operating parameters and may conduct repeated performance tests to "fine tune" the operating parameter limits, if desired.

With regard to the testing requirements, annual testing is required for the first 3 years. If these tests show that the facility is in compliance each of these 3 years, then subsequent testing would be done every third year. Initial testing includes testing for the following pollutants: PM, CO, HCl, dioxin/furan, Pb, Cd, Hg, and opacity. The annual/skip or "repeat" testing only includes testing for PM, CO, HCl, and opacity. Where good combustion alone serves as the basis for the emission limits, the Agency only requires facilities to perform an initial compliance test for PM, CO, dioxin/furan, Hg, and opacity, annual incinerator inspections, annual opacity testing, and parameter monitoring (charge rate and secondary chamber temperature). Minimum sampling times of 1 hour (4 hours for dioxin/furan) have been included in the final regulations for all HMIWI.

The "repeat" testing requirements will ensure, on an ongoing basis, that the APCD is operating properly, that no deterioration in performance has occurred, and that no changes have been made to the operating system or the type of waste burned. Where "repeat" testing is not required, annual inspections, annual opacity testing, and parameter monitoring will ensure that the HMIWI is in good working order. However, cost considerations were the only reason for excluding the repeat testing for units with good combustion alone. Good combustion alone with its associated monitoring are provided in order to minimize costs for a small number of incinerators in remote areas where alternatives to incineration might be unavailable. Initial testing for good combustion units includes testing for PM, CO, dioxin/furan, Hg, and opacity. The Hg testing is required to ensure that units are segregating Hg bearing wastes and meeting the Hg emission limit.

Rather than require third-party inspections, which could be burdensome for small remote facilities, the final guidelines allow for in-house equipment inspections. However, EPA plans to work with States to give higher priority to these small remote facilities in terms of enforcement inspections. Either the EPA or the State will inspect these small remote facilities annually for the first three years after the State plan is approved. Following the three-year period, these sources will be placed on the regular enforcement inspection schedule.

### *E. Operator Training and Qualification*

The final operator training and qualification requirements are almost identical to those described in the 1996 re-proposal. The final requirements provide flexibility by allowing State-approved training and qualification programs. Where there are no State-approved programs, the final regulations include minimum requirements for training and qualification. The EPA has a training manual available through its Air Pollution Training Institute (APTI). For further information, contact APTI at (919) 541–2497. In addition, EPA plans to work with the American Hospital Association to develop a correspondence course for those facilities that may not have access to adequate training. As discussed above, EPA plans to work with States to give higher priority to the small remote units in terms of enforcement inspections, including a review of operator training.

## IV. Standards of Performance for New Sources

This section presents a summary of the final standards, including identification of the source category and pollutants being regulated, and presentation of the final emission limits and their associated performance testing, monitoring, recordkeeping and reporting requirements. This section discusses the most significant changes to the standards presented in the June 20, 1996 **Federal Register** document. Also discussed in this section is the rationale for the selection of MACT and a summary of the impacts of the final standards.

### *A. Summary of the Standards*

The final standards (subpart Ec) apply to each new HMIWI for which

construction commenced after June 20, 1996 or to an existing HMIWI for which modification commenced after March 16, 1998. Hospital/medical/infectious waste incinerators for which construction commenced on or before June 20, 1996 are not covered under the subpart Ec standards; they are considered existing sources and are subject to the guidelines under subpart Ce (see section V of this notice).

A HMIWI is defined as any device that combusts any amount of medical/ infectious waste or hospital waste. The terms medical/ infectious waste and hospital waste are discussed in section III.A and defined in § 60.51c. An incinerator is not subject to subpart Ec during periods when only pathological, low-level radioactive, or chemotherapeutic waste (all defined in § 60.51c) is burned provided that the owner or operator keeps records of the periods of time when only pathological, low-level radioactive, and/or chemotherapeutic waste is burned. Any combustor required to have a permit under section 3005 of the SWDA is exempt from subpart Ec as are incinerators subject to subpart Cb, Ea, or Eb. New incinerators, processing operations, or boilers that co-fire medical/infectious waste or hospital waste with other fuels or wastes and that combust 10 percent or less medical/ infectious waste and hospital waste by weight (on a calendar quarter basis) are not subject to the emission limits under subpart Ec, but must keep records of the amount of each fuel and waste fired.

The HMIWI source category is divided into three subcategories based on waste burning capacity: Small (≤200 lb/hr), medium (>200 to 500 lb/hr), and large (>500 lb/hr). Waste burning capacity is determined either by the maximum design capacity or by the "maximum charge rate" established during the most recent performance test. In other words, a source may change its size designation by establishing a "maximum charge rate" lower than its design capacity. For example, a "medium" unit with a design capacity of 250 lb/hr may establish a maximum charge rate of 200 lb/hr and be considered a "small" unit for purposes of the standards. Separate emission standards apply to each subcategory of new HMIWI. A summary of the final emission limits for new or modified HMIWI is presented in Table 3.

TABLE 3.—SUMMARY OF PROMULGATED EMISSION LIMITS FOR NEW HMIWI

| Pollutant (test method) | Emission limits | | |
|---|---|---|---|
| | Small HMIWI | Medium HMIWI | Large HMIWI |
| Particulate matter (EPA Method 5 or Method 29). | 69 mg/dscm (0.03 gr/dscf) | 34 mg/dscm (0.015 gr/dscf) | 34 mg/dscm (0.015 gr/dscf). |
| Carbon monoxide (EPA Method 10 or Method 10B). | 40 ppmv | 40 ppmv | 40 ppmv. |
| Dioxins/furans (EPA Method 23) | 125 ng/dscm total CDD/CDF (55 gr/$10^9$ dscf) or 2.3 ng/dscm TEQ (1.0 gr/$10^9$ dscf). | 25 ng/dscm total CDD/CDF (11 gr/$10^9$ dscf) or 0.6 ng/dscm TEQ (0.26 gr/$10^9$ dscf). | 25 ng/dscm total CDD/CDF (11 gr/$10^9$ dscf) or 0.6 ng/dscm TEQ (0.26 gr/$10^9$ dscf). |
| Hydrogen chloride (EPA Method 26). | 15 ppmv or 99% reduction | 15 ppmv or 99% reduction | 15 ppmv or 99% reduction. |
| Sulfur dioxide (testing not required). | 55 ppmv | 55 ppmv | 55 ppmv. |
| Nitrogen oxides (testing not required). | 250 ppmv | 250 ppmv | 250 ppmv. |
| Lead (EPA Method 29) | 1.2 mg/dscm (0.52 gr/$10^3$ dscf) or 70% reduction. | 0.07 mg/dscm (0.03 gr/$10^3$ dscf) or 98% reduction. | 0.07 mg/dscm (0.03 gr/$10^3$ dscf) or 98% reduction. |
| Cadmium (EPA Method 29) | 0.16 mg/dscm (0.07 gr/$10^3$ dscf) or 65% reduction. | 0.04 mg/dscm (0.02 gr/$10^3$ dscf) or 90% reduction. | 0.04 mg/dscm (0.02 gr/$10^3$ dscf) or 90% reduction. |
| Mercury (EPA Method 29) | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. |

In addition to the emission limits, new or modified large HMIWI are subject to a 5 percent visible emission limit for fugitive emissions generated during ash handling and all new or modified HMIWI are subject to a 10 percent stack opacity limit. Performance tests for fugitive emissions from ash handling must be conducted using EPA Reference Method 22. Stack opacity must be determined using EPA Reference Method 9.

Table 4 summarizes the additional requirements for new or modified HMIWI under the NSPS, including the operator training and qualification requirements, siting requirements, compliance and performance testing requirements, monitoring requirements, and reporting and recordkeeping requirements. A summary of dates for compliance with the promulgated standards for new HMIWI is presented in Table 5. These dates apply to all new or modified HMIWI.

TABLE 4.—SUMMARY OF ADDITIONAL REQUIREMENTS UNDER THE NSPS FOR NEW HMIWI

| Additional requirements |
|---|
| Operator Training and Qualification Requirements: |
| • Complete HMIWI operator training course. |
| • Qualify operators. |
| • Maintain information regarding HMIWI operating procedures and review annually. |
| Siting Requirements: |
| • Prepare a siting analysis that considers air pollution control alternatives that minimize, on a site-specific basis and to the maximum extent practicable, potential risks to public health and the environment. |

TABLE 4.—SUMMARY OF ADDITIONAL REQUIREMENTS UNDER THE NSPS FOR NEW HMIWI—Continued

| Additional requirements |
|---|
| Waste Management Plan:<br>• Prepare a waste management plan that identifies the feasibility and approach to separate certain components of a health care waste stream.<br>Compliance and Performance Testing Requirements:<br>• Conduct an initial performance test to determine compliance with the PM, CO, CDD/CDF, HCl, Pb, Cd, and Hg emission limits and opacity limit, and establish operating parameters.<br>• Conduct annual performance tests to determine compliance with the PM, CO, and HCl emission limits and opacity limit.<br>• Facilities may conduct performance tests for PM, CO, and HCl every third year if the previous three HMIWI performance tests demonstrate that the facility is in compliance with the emission limits for PM, CO, or HCl.<br>• Perform annual fugitive testing (large HMIWI only).<br>Monitoring Requirements:<br>• Install and maintain equipment to continuously monitor operating parameters including secondary chamber temperature, waste feed rate, bypass stack, and APCD operating parameters as appropriate.<br>• Obtain monitoring data at all times during HMIWI operation.<br>Reporting and Recordkeeping Requirements:<br>• Maintain for 5 years records of results from initial performance test and all subsequent performance tests, operating parameters, any maintenance, the siting analysis, and operator training and qualification.<br>• Submit the results of the initial performance test and all subsequent performance tests.<br>• Submit reports on emission rates or operating parameters that have not been recorded or that exceeded applicable limits.<br>• Provide notification of intent to construct, construction commencement date, planned initial start-up date, planned waste type(s) to be combusted, the waste management plan, and documentation resulting from the siting analysis. |

NOTE: This table depicts major provisions of the NSPS and does not attempt to show all requirements. The regulatory text of Subpart Ec should be relied upon for a full and comprehensive statement of the requirements of the NSPS.

TABLE 5.—COMPLIANCE TIMES UNDER THE NSPS FOR NEW HMIWI

| Requirement | Compliance time |
|---|---|
| Effective date | 6 months after promulgation of NSPS. |
| Operator training and qualification requirements. | On effective date or upon initial start up, whichever is later. |
| Initial compliance test | On effective date or within 180 days of initial start up, whichever is later. |
| Performance test | Within 12 months following initial compliance test and annually thereafter. Facilities may conduct performance tests every third year if the previous three performance tests demonstrate compliance with the emission limits. |
| Operator parameter monitoring | Continuously, upon completion of initial compliance test. |
| Recordkeeping | Continuously, upon completion of initial compliance test. |
| Reporting | Annually, upon completion of initial compliance test; semiannually, if noncompliance. |

NOTE: This table depicts major provisions of the NSPS and does not attempt to show all requirements. The regulatory text of Subpart Ec should be relied upon for a full and comprehensive statement of the requirements of the NSPS.

*B. Significant Issues and Changes*

The most significant changes to the standards made following the June 20, 1996 **Federal Register** document are discussed below. Further discussion of these changes as well as other comments and responses regarding the NSPS are provided in "Hospital/ Medical/ Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/ R–97–006b).

1. Combined Dry/Wet Scrubbers

As discussed in the 1996 re-proposal, the MACT floor for medium and large HMIWI was based on emission limits achievable with good combustion and a dry injection/fabric filter (DI/FF) combined with a high efficiency wet scrubber (combined dry/wet system).

During the public comment period following the 1996 re-proposal, several commenters questioned the basis for the MACT floors for new medium and large HMIWI. The commenters contended that the revised MACT floor emission levels were based on invalid test data and invalid assumptions as to the applicability and technical feasibility of combination dry/wet scrubbing systems. The commenters stated that the combined dry/wet system is not proven technology. Some commenters stated that the pollutant-by-pollutant approach used to determine the MACT floor for new medium and large units resulted in a MACT floor that can not be accomplished with any type of economic feasibility. Other commenters stated that the costs of requiring a wet scrubber in addition to a dry scrubber far outweigh the air pollution control benefits.

The EPA recognizes that the pollutant-by-pollutant approach for determining the MACT floor can, as it does in this case, cause the overall cost of the regulation to increase. For example, the pollutant-by-pollutant approach for the HMIWI regulation results in a MACT floor for HCl based on a high efficiency wet scrubber, while the MACT floor for other pollutants reflects the performance of a dry scrubber. Compared to the dry scrubber alone, the addition of the wet scrubber adds considerable cost to the regulation while achieving a relatively small additional reduction in HCl. However, as mentioned later in this notice, a spray dryer/fabric filter system with carbon injection could be used instead of a combined dry/wet scrubber to achieve all of the emission limits at a lower cost than the combined system. On the other hand, EPA interprets section 129 of the CAA to require that the MACT floor be determined in this manner, and EPA believes that Congress did in fact intend that sources subject to regulations developed under section 129 meet emission limits that are achieved by the

best controlled unit for each pollutant as long as the control systems are compatible with each other. To EPA's knowledge, there is no technical reason why these two air pollution control systems cannot be combined (discussed later).

Section 129(a)(2) of the CAA specifies that "the degree of reduction in emissions that is deemed achievable for new units in a category shall not be less stringent than the emissions control achieved in practice by the best controlled similar unit, as determined by the Administrator." This requirement identifies the least stringent emissions standards that the EPA may adopt for new HMIWI (i.e., the MACT floor).

At least one existing HMIWI in the medium subcategory is controlled with a high efficiency wet scrubber and another is equipped with a DI/FF system without carbon. The MACT floor for new medium HMIWI was based on both of these technologies (i.e., a combined dry/wet scrubber system) because the wet scrubber achieves the lowest dioxin, HCl, and Hg emissions, but the DI/FF without carbon injection achieves the lowest Pb and Cd emissions (note: as discussed elsewhere, the DI/FF system with carbon injection achieves the same or lower dioxin and Hg emissions as a wet scrubber). While no combined dry/wet scrubber systems were identified on medium HMIWI, these systems are currently in operation on large HMIWI. As discussed later, test data appear to indicate that combining the two systems is technically feasible. Similarly, the MACT floor for new large HMIWI was based on the emission levels that are achievable with good combustion and a combined dry/wet system with activated carbon.

The EPA does not agree that the MACT floors are to be based upon one overall unit. Rather, the EPA believes that section 129 supports its interpretation that it is legally permissible to set the MACT floor pollutant-by-pollutant, as long as the various MACT floors do not result in standards that are not achievable.

Section 129(a)(2) requires the EPA to establish technology based emission standards that "reflect the maximum degree of reduction in emission of air pollutants listed under section (a)(4) that the Administrator, taking into consideration the cost of achieving such emission reduction and any nonair quality health and environmental impacts and energy requirements, determines is achievable . . ." Congress further specified in section 129(a)(2) the minimum reduction that could satisfy this requirement (i.e., the MACT floor) for new sources as "the emission control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." This language does not expressly address whether the floor may be established pollutant-by-pollutant. The "emission control achieved by the best controlled similar unit" can be read either to mean emission control as to a particular pollutant, or emission control that is achieved by the unit as a whole. Nevertheless, the MACT floor reflects the least stringent emission standards that EPA may adopt in accordance with section 129(a)(2) regardless of costs.

Other statutory provisions are relevant, although they also do not decisively address this issue. Section 129(a)(4) requires MACT standards for, at a minimum, PM, opacity, $SO_2$, HCl, $NO_x$, CO, Pb, Cd, Hg, and dioxin/furan emitted by HMIWI. This provision certainly appears to direct maximum reduction of each specified pollutant. Moreover, although the provisions do not state whether there is to be a separate floor for each pollutant, the fact that Congress singled out these pollutants suggests that the floor level of control need not be limited by the performance of devices that only control some of these pollutants well.

A more detailed discussion of the legal basis for this pollutant-by-pollutant approach is contained in section 3.4.2 of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). Quantitative information about the costs and air pollution control performance of both wet scrubbers and dry scrubbers is summarized in the 1996 re-proposal (61 FR 31743). As discussed in the 1996 re-proposal, detailed descriptions of costs and air pollution control performance of these systems are available in Docket A–91–61, items IV–B–30, IV–B–32, IV–B–48, and IV–B–49. See the **ADDRESSES** section of this preamble for the location and telephone number for the docket.

The EPA also notes that it followed this approach of setting the MACT floors and MACT standards pollutant-by-pollutant in the proposed MWC rules that were published on September 20, 1994 pursuant to section 129 and codified in 40 CFR part 60, Subparts Eb and Cb. Commenters on that rule also expressed concerns about the achievability of the resulting standards. The EPA notes that large MWC units (more than 250 tons/day capacity) are achieving the promulgated standards (in fact, several combined systems were in operation at the time of promulgation); thus, the approach of proposing MACT standards pollutant-by-pollutant did not lead to unachievable or economically infeasible standards in this case.

In response to commenters' concerns regarding the technical feasibility of combined dry/wet systems, a review of the available data documenting the performance of combined dry/wet scrubber systems was conducted. Although limited emissions data are available for HMIWI with combined dry/wet control systems, the available data indicate that the MACT floor emission levels for new HMIWI are achievable and technically feasible. The performance of dry scrubbers with activated carbon injection and the performance of wet scrubbers is well documented. The available data for combination dry/wet systems provide no indication of operational or emissions problems that occur as a result of combining dry and wet control systems. Finally, as mentioned in the 1996 re-proposal, one existing HMIWI equipped with a spray dryer/fabric filter system with carbon injection was tested during the EPA testing program, and this test demonstrated that this scrubbing technology could be used instead of a combined dry/wet scrubber to achieve all of the emission limits.

2. Siting Analysis

Section 129 of the CAA states that performance standards for new HMIWI must incorporate siting requirements that minimize, on a site-specific basis and to the maximum extent practicable, potential risks to public health or the environment. The Agency is directed by the CAA to promulgate siting requirements that meet the minimum criteria outlined in the CAA. In the 1995 proposal, the siting requirements were patterned after the Prevention of Significant Deterioration (PSD) requirements within the New Source Review (NSR) program. Additionally, the originally proposed siting requirements included provisions for a public meeting and the preparation of a comment/response document that would be made available to the public.

Following the 1996 re-proposal, commenters requested that EPA do away with the siting requirements because they will be costly and will impede the permitting process. Other commenters requested that EPA adopt siting requirements that are consistent with those that have been developed and enacted by most of the State environmental agencies. The commenters noted that States are equally concerned with minimizing potential risks to the environment, and that most have taken appropriate steps

in the development of their own siting criteria. The commenters indicated that requiring siting analyses in addition to those required by States and under the National Environmental Policy Act would be duplicative and would not enhance environmental protection. Other commenters supported the EPA's 1995 proposal to require an opportunity for public comments and a hearing on siting decisions.

In reviewing the 1995 proposed siting requirements and the comments received, the Agency is promulgating siting requirements as outlined in the CAA. The siting requirements promulgated today require the potential owner of an affected facility to prepare an analysis of the impacts of the affected facility. The analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, the analysis may consider costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives. Analyses of facility impacts prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, as long as they include the consideration of air pollution control alternatives specified above. The owner or operator of the affected facility must complete and submit the siting requirements to EPA.

*C. Selection of MACT*

The EPA considered three regulatory options for adoption as the final standard for new HMIWI. These regulatory options are discussed in Appendix A of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). As required by section 129(a)(2) of the CAA, the Administrator reviewed the emissions reductions achievable with each regulatory option and the cost, nonair quality environmental, and energy impacts of the regulatory options. Based on this review, the Administrator determined that the most cost-effective and achievable emission standards for promulgation are based on emission limits achievable with good combustion and a moderate efficiency wet scrubber for new small HMIWI, and good combustion and a combined dry/wet control system with carbon for new medium and large HMIWI. These final emissions standards reflect the MACT floor emission levels for new small and large HMIWI, but are more stringent than the MACT floor for new medium HMIWI.

The MACT floor for new small HMIWI was based on emission limits achievable through use of good combustion and a moderate efficiency wet scrubber. Consideration of the impact of this MACT floor indicates that few new small HMIWI are likely to be constructed due to the substantial increase in the cost of a new small HMIWI as a result of the moderate efficiency wet scrubber and the availability of alternative means of medical waste disposal.

One regulatory option more stringent than this MACT floor would reflect the use of good combustion and a high efficiency wet scrubber. Consideration of this option indicates that the nationwide impacts would be negligible, primarily because few new small HMIWI would be constructed (i.e., because of switching to alternative means of medical waste disposal). Where a typical new small HMIWI was constructed, however, the high efficiency wet scrubber would only reduce PM emissions by a small amount and would increase air pollution control costs by about 15 percent. As a result, the EPA established the MACT emission limitations for small new HMIWI based on the use of good combustion and a moderate efficiency wet scrubber (i.e., the MACT floor).

The MACT floor for new medium HMIWI was based on emission limits achievable through the use of good combustion and a combined dry/wet control system without activated carbon. On a national basis, because of switching to the use of alternative means of medical waste disposal, the addition of activated carbon to the combined dry/wet system results in negligible cost increase. For a typical new medium HMIWI, the addition of carbon would reduce emissions of dioxin significantly and would increase air pollution control costs by less than 4 percent. As a result, the EPA established the MACT emission limitations for new medium HMIWI based on good combustion and a combined dry/wet scrubber system with activated carbon.

The MACT floor for new large HMIWI was based on emission limits achievable through use of good combustion and a combined dry/wet scrubber with activated carbon. There is no air pollution control technology which could achieve lower emissions than this system. Consequently, EPA established the MACT emission limitations for new large HMIWI based on good combustion and a combined dry/wet scrubber system with activated carbon (i.e., the MACT floor).

*D. Impacts of the Standards*

There are a number of alternatives to onsite incineration of hospital waste and medical/infectious waste, including recycling or direct landfilling of non-infectious waste, and off-site commercial waste disposal or any of several waste disinfection technologies (e.g., steam autoclaving, microwave irradiation, macrowave irradiation, chemical treatment, thermal treatment, and biological treatment) for infectious waste. Many facilities that may have purchased an HMIWI in the absence of the HMIWI standards may find it more cost effective to dispose of their waste using one of these alternatives. As discussed in the June 1996 re-proposal, while further study is warranted, there appears to be no significant or substantial adverse economic, environmental, or health and safety issues associated with the increased use of the alternative waste treatment technologies.

In some cases, facilities that "switch" to alternative methods of waste disposal may further decrease their waste disposal costs by segregating their waste into infectious and noninfectious portions, and recycling or landfilling (rather than treating) their noninfectious waste. To account for facilities switching to alternative methods of waste disposal, the impacts of the standards were developed based on three compliance scenarios: no switching (scenario A), switching with waste segregation (scenario B), and switching without waste segregation (scenario C).

In the absence of the new standards, EPA projects that 85 new small HMIWI, 90 new medium HMIWI, 60 new large HMIWI, and 10 new commercial HMIWI would have been installed over the next five years. Scenario A preserves this assumption and estimates the costs of the additional control measures that would be required for these 245 new facilities to meet the standards at $36.2 million annually. The EPA believes that Scenario A is unrealistic and grossly overstates the national costs associated with the standards. Under Scenarios B and C, no new small or medium HMIWI are projected to be installed. Facilities that would have installed these units are assumed to find alternate methods of waste disposal. Under Scenario B, no new large HMIWI (other than commercial units) are projected to be installed either. The EPA believes that the total costs of the final standards for new sources in the fifth year after

implementation will fall somewhere between the $12.1 million/yr estimate for Scenario B and the $26.2 million/yr estimate for Scenario C.

Table 6 presents baseline emissions (i.e., emissions in the absence of the MACT emission standards) and the emissions that are expected to occur under the final MACT standard. A range of emissions is presented in Table 6 to account for the emissions that could occur under switching scenarios B and C as a result of the NSPS. Table 6 also presents the percent reduction in emissions achieved under the final MACT standard for new HMIWI.

TABLE 6.—BASELINE EMISSIONS, EMISSIONS IN THE FIFTH YEAR AFTER IMPLEMENTATION OF THE FINAL NSPS, AND EMISSIONS REDUCTION

[Metric Units]

| Pollutant, units | Baseline | Emissions under the final NSPS | Emissions reduction, percent |
|---|---|---|---|
| PM, Mg/yr | 28 | 2.1 to 4.1 | 85 to 92. |
| CO, Mg/yr | 14 | 6.5 to 14 | 0 to 52. |
| CDD/CDF, g/yr | 47 | 5.9 to 12 | 74 to 87. |
| TEQ CDD/CDF, g/yr | 1.1 | 0.14 to 0.28 | 74 to 87. |
| HCl, Mg/yr | 64 | 1.5 to 3.1 | 95 to 98. |
| $SO_2$, Mg/yr | 28 | 14 to 28 | 0 to 52. |
| $NO_X$, Mg/yr | 130 | 65 to 130 | 0 to 52. |
| Pb, Mg/yr | 0.39 | 0.031 to 0.06 | 85 to 92. |
| Cd, Mg/yr | 0.051 | $4.6\times10^{-3}$ to $8.9\times10^{-3}$ | 83 to 91. |
| Hg, Mg/yr | 0.21 | 0.056 to 0.12 | 45 to 74. |

To convert Mg/yr to ton/yr, multiply by 1.1. To convert g/yr to lb/yr, divide by 453.6.

As discussed further in Appendix A of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b), the EPA is not able to calculate a monetized value for most of these emission reductions. However, using "Benefit-Cost Analysis of Selected NSPS for Particulate Matter" as a basis, EPA has calculated a monetized value for reductions in PM emissions using an estimate of $6,075 (1993 dollars) per ton of PM. This yields annualized benefits of PM reductions for the standards ranging from $157,300 to $170,000 (1993 dollars).

As a result of the MACT standards for new HMIWI, industries that generate hospital waste and/or medical/infectious waste (i.e., hospitals, nursing homes, etc.) are expected to experience average price increases in the range of 0.00 to 0.16 percent, depending on the industry. These industries are expected to experience output and employment impacts in the range of 0.00 to 0.21 percent. In addition, the revenue impacts for these industries are expected to range from an increase of 0.05 percent to a decrease of 0.05 percent as a result of the standards. For hospitals, 0.03 percent is estimated as the price increase necessary to recover annual control costs. The expected average price increase for each hospital patient-day is expected to be less than 35 cents. The average price impact for the commercial medical waste incinerator industry is approximately a 4.1 percent increase in price.

Facilities with onsite HMIWI that are currently uncontrolled may experience impacts ranging from 0.03 to 1.70 percent, depending on the industry. For many of these facilities, the economic impacts of switching to an alternative method of waste disposal are much lower than the economic impacts of choosing to install emission control equipment. The decision to switch to an alternative method of waste disposal should preclude facilities from experiencing a significant economic impact. The impacts that would be incurred by medical/infectious waste generators that currently use an offsite waste incineration service range from 0.00 to 0.02 percent and are considered negligible impacts.

The option of switching to an alternative method of waste disposal will be an attractive option for many facilities that are considering the purchase of a new HMIWI and should preclude facilities from experiencing a significant economic impact. However, two types of HMIWI operators may not be able to switch to an alternative: commercial HMIWI operators, because their line of business is commercial incineration; and onsite HMIWI that burn a small amount of waste and are located far away from an urban area, because they may not have access to other methods of waste disposal. However only a few, if any, of the projected 10 new commercial HMIWI over the next 5 years, and at the most, only a few of the projected 85 new small onsite HMIWI over the next 5 years are likely to be significantly impacted by the regulation (under all three regulatory options). A "significant impact" does not necessarily imply a facility closure or the need to cancel plans to open up or expand a facility. For example, operators of small, remote onsite HMIWI may still have switching opportunities. As the commercial incineration industry continues to grow (with additional impetus being provided by the EG and NSPS), it is possible that services will be extended to remote, isolated areas that are currently not served. Onsite autoclaving is another possible treatment alternative. If a facility had planned to invest in a new HMIWI, it stands to reason that an onsite alternative technology of comparable cost would be affordable.

The economic impact analysis examines possible economic impacts that may occur in industries that will be directly affected by this regulation. Therefore, the analysis includes an examination of industries that generate hospital waste or medical/infectious waste or dispose of such waste. Secondary impacts such as subsequent impacts on APCD vendors and HMIWI vendors are not estimated due to data limitations. Air pollution control device vendors are expected to experience an increase in demand for their products due to the regulation. This regulation is also expected to increase demand for commercial HMIWI services. However, due to economies of scale, this regulation is expected to shift demand from smaller incinerators to larger incinerators. Therefore, small HMIWI vendors potentially may be adversely affected by the regulation. Lack of data on the above effects prevent

quantification of the economic impacts on these secondary sectors.

No increase in the total national usage of natural gas for combustion controls is expected to result from the final HMIWI standards. The total national usage of electrical energy for the operation of add-on control devices as a result of the final MACT standards is expected to increase by less than 9,800 megawatt hours per year (MW-hr/yr) (33.4 billion British thermal units per year [$10^9$ Btu/yr]). As discussed in the 1996 re-proposal, compared to the amount of energy used by health care facilities such as hospitals (approximately 2,460 $MMm^3$/yr of natural gas and 23.2 million MW-hr/yr of electricity), the increase in energy usage that results from implementation of the HMIWI emission standards is insignificant.

Less than 43,600 Mg/yr (48,000 tons/yr) of additional solid waste is expected to result from the adoption of the final MACT standards. As discussed in the 1996 re-proposal, compared to municipal waste, which is disposed in landfills at an annual rate of over 91 million Mg/yr (100 million tons/yr), the increase in solid waste from the implementation of the final HMIWI standards is insignificant.

Less than 3.3 million gallons of additional wastewater would be generated in the fifth year by HMIWI as a result of the final NSPS. This amount is the equivalent of wastewater produced annually by one small hospital. Therefore, when considering the wastewater produced annually at health care facilities nationwide, the increase in wastewater resulting from the implementation of the MACT emission standards for new HMIWI is insignificant.

## V. Emission Guidelines for Existing Sources

This section presents a summary of the final emission guidelines, including identification of the source category and pollutants being regulated, and presentation of the final emission limits and their associated performance testing, monitoring, recordkeeping and reporting requirements. This section discusses the most significant changes to the guidelines presented in the June 20, 1996 **Federal Register** document. Also discussed in this section is the rationale for the selection of MACT and a summary of the impacts of the final guidelines.

### *A. Summary of the Guidelines*

The final guidelines (subpart Ce) apply to each existing HMIWI for which construction commenced on or before June 20, 1996. Hospital/medical/infectious waste incinerators for which construction commenced after June 20, 1996 or modification commenced after March 16, 1998 are not subject to the final subpart Ce guidelines; they are considered new sources and are subject to the standards under subpart Ec (see section IV of this document).

A HMIWI is defined as any device that combusts any amount of medical/infectious waste or hospital waste. The terms "medical/ infectious waste" and "hospital waste" are discussed in section III.A and defined in § 60.51c. An incinerator is not subject to subpart Ce during periods when only pathological, low-level radioactive, or chemotherapeutic waste (all defined in § 60.51c) is burned provided that the owner or operator keeps records of the periods of time when only pathological, low-level radioactive, or chemotherapeutic waste is burned. Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is exempt from subpart Ce as are incinerators subject to subpart Cb, Ea, or Eb. Existing incinerators, processing operations, or boilers that co-fire hospital waste and/or medical/infectious waste with other fuels or wastes and combust 10 percent or less medical/infectious waste and hospital waste by weight (on a calendar quarter basis) are not subject to the emission limitations but must keep records of the amounts of each fuel and waste burned.

The HMIWI source category is divided into three subcategories based on waste burning capacity: small (≤200 lb/hr), medium (>200 to 500 lb/hr), and large (>500 lb/hr). Waste burning capacity is determined either by the maximum design capacity or by the "maximum charge rate" established during the most recent performance test. In other words, a source may change its size designation by establishing a "maximum charge rate" lower than its design capacity. For example, a "medium" unit with a design capacity of 250 lb/hr may establish a maximum charge rate of 200 lb/hr and be considered a "small" unit for purposes of the emission guidelines. Separate emission guidelines apply to each subcategory of existing HMIWI. A summary of the final emission limits for existing HMIWI is presented in Table 7. In addition to the emission limits presented in Table 7, all HMIWI are subject to a 10 percent stack opacity limitation. Stack opacity will be determined using EPA Reference Method 9.

TABLE 7.—SUMMARY OF PROMULGATED EMISSION LIMITS FOR EXISTING HMIWI

| Pollutant (test method) | Emission limits | | |
|---|---|---|---|
| | Small HMIWI | Medium HMIWI | Large HMIWI |
| Particulate matter (EPA Method 5 or Method 29). | 115 mg/dscm (0.05 gr/dscf) | 69 mg/dscm (0.03 gr/dscf) | 34 mg/dscm (0.015 gr/dscf). |
| Carbon monoxide (EPA Method 10 or Method 10B). | 40 ppmv | 40 ppmv | 40 ppmv. |
| Dioxins/furans (EPA Method 23) | 125 ng/dscm total CDD/CDF (55 gr/$10^9$ dscf) or 2.3 ng/dscm TEQ (1.0 gr/$10^9$ dscf). | 125 ng/dscm total CDD/CDF (55 gr/$10^9$ dscf) or 2.3 ng/dscm TEQ (1.0 gr/$10^9$ dscf). | 125 ng/dscm total CDD/CDF (55 gr/$10^9$ dscf). or 2.3 ng/dscm TEQ (1.0 gr/$10^9$ dscf). |
| Hydrogen chloride (EPA Method 26). | 100 ppmv or 93% reduction | 100 ppmv or 93% reduction | 100 ppmv or 93% reduction |
| Sulfur dioxide (testing not required). | 55 ppmv | 55 ppmv | 55 ppmv. |
| Nitrogen oxides (testing not required). | 250 ppmv | 250 ppmv | 250 ppmv. |
| Lead (EPA Method 29) | 1.2 mg/dscm (0.52 gr/$10^3$ dscf) or 70% reduction. | 1.2 mg/dscm (0.52 gr/$10^3$ dscf) or 70% reduction. | 1.2 mg/dscm (0.52 gr/$10^3$ dscf) or 70% reduction. |
| Cadmium (EPA Method 29) | 0.16 mg/dscm (0.07 gr/$10^3$ dscf) or 65% reduction. | 0.16 mg/dscm (0.07 gr/$10^3$ dscf) or 65% reduction. | 0.16 mg/dscm (0.07 gr/$10^3$ dscf) or 65% reduction. |

TABLE 7.—SUMMARY OF PROMULGATED EMISSION LIMITS FOR EXISTING HMIWI—Continued

| Pollutant (test method) | Emission limits | | |
|---|---|---|---|
| | Small HMIWI | Medium HMIWI | Large HMIWI |
| Mercury (EPA Method 29) ..... | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. | 0.55 mg/dscm (0.24 gr/$10^3$ dscf) or 85% reduction. |

The emission limits for small existing HMIWI presented in Table 7 are more stringent than the MACT floor emission limits for small existing HMIWI. However, the final HMIWI guidelines contain alternative emission limits which are based on the MACT floor for small existing HMIWI that meet certain "rural criteria." The "rural criteria" stipulates that an HMIWI is allowed to meet alternative emission limits if it is located at least 50 miles from the nearest Standard Metropolitan Statistical Area (SMSA) boundary and burns no more than 2,000 pounds of hospital waste and medical/infectious waste per week. The SMSA is defined by the Office of Management and Budget (OMB). For purposes of these emission guidelines, the list of areas comprising each SMSA as of June 30, 1993 will be used to determine whether a small HMIWI meets the "rural criteria." The list of areas comprising each SMSA is presented in OMB Bulletin No. 93–17 entitled "Revised Statistical Definitions for Metropolitan Areas." This document may be obtained by contacting the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161, or by calling (703) 487–4650 and requesting document No. PB 93–192–664. This document is available for public inspection and copying at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, item IV–J–125). See the **ADDRESSES** section at the beginning of this preamble for the telephone number and location of the Docket. This document has been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The emission limits that correspond with these alternative guidelines for rural HMIWI are presented in Table 8. For further discussion of the "rural criteria" and rationale for the alternative emission limits for small existing HMIWI in rural areas, see section V.B "Significant Issues and Changes" (below).

TABLE 8.—SUMMARY OF ALTERNATIVE EMISSION LIMITS FOR SMALL EXISTING HMIWI THAT MEET THE RURAL CRITERIA

| Pollutant (Performance test method) | Emission limits |
|---|---|
| Particulate matter (EPA Method 5) ..... | 197 mg/dscm (0.086 gr/dscf). |
| Carbon monoxide (EPA Method 10 of 10B) ..... | 40 ppmv. |
| Dioxins/furans (EPA Method 23) ..... | 800 ng/dscm total CDD/CDF (350 gr/$10^9$ dscf) or 15 ng/dscm TEQ (6.6 gr/$10^9$ dscf). |
| Hydrogen chloride (testing not required) ..... | 3,100 ppmv. |
| Sulfur dioxide (testing not required) ..... | 55 ppmv. |
| Nitrogen oxides (testing not required) ..... | 250 ppmv. |
| Lead (testing not required) ..... | 10 mg/dscm (4.4 gr/$10^3$ dscf). |
| Cadmium (testing not required) ..... | 4 mg/dscm (1.7 gr/$10^3$ dscf). |
| Mercury (EPA Method 29) ..... | 7.5 mg/dscm (3.3 gr/$10^3$ dscf). |

Table 9 summarizes the additional requirements for existing HMIWI under the emission guidelines, including the operator training and qualification requirements, inspection requirements, compliance and performance testing requirements, monitoring requirements, and reporting and recordkeeping requirements. Table 10 summarizes the additional requirements under the emission guidelines for small existing HMIWI that meet the rural criteria. With the exception of the compliance and performance testing requirements and the inspection requirements, existing HMIWI that meet the small rural criteria are to comply with the same additional requirements as all other existing HMIWI. A summary of dates for compliance with the promulgated guidelines for existing HMIWI is presented in Table 11. These dates apply to all existing HMIWI.

TABLE 9.—SUMMARY OF ADDITIONAL REQUIREMENTS UNDER THE EMISSION GUIDELINES FOR EXISTING HMIWI

| Additional requirements |
|---|
| Operator Training and Qualification Requirements:<br>• Complete HMIWI operator training course.<br>• Qualify operators.<br>• Maintain information regarding HMIWI operating procedures and review annually. |
| Waste Management Plan:<br>• Prepare a waste management plan that identifies the feasibility and approach to separate certain components of a health care waste stream. |
| Compliance and Performance Testing Requirements:<br>• Conduct an initial performance test to determine compliance with the PM, CO, CDD/CDF, HCl, Pb, Cd, and Hg emission limits and opacity limit, and establish operating parameters.<br>• Conduct annual performance tests to determine compliance with the PM, CO, and HCl emission limits and opacity limit.<br>• Facilities may conduct performance tests for PM, CO, and HCl every third year if the previous three performance tests demonstrate that the facility is in compliance with the emission limits for PM, CO, and HCl. |

TABLE 9.—SUMMARY OF ADDITIONAL REQUIREMENTS UNDER THE EMISSION GUIDELINES FOR EXISTING HMIWI—Continued

| Additional requirements |
|---|
| Monitoring Requirements:<br>• Install and maintain equipment to continuously monitor operating parameters including secondary chamber temperature, waste feed rate, bypass stack, and APCD operating parameters as appropriate.<br>• Obtain monitoring data at all times during HMIWI operation.<br>Reporting and Recordkeeping Requirements:<br>• Maintain for 5 years records of results from the initial performance test and all subsequent performance tests, operating parameters, and operator training and qualification.<br>• Submit the results of the initial performance test and all subsequent performance tests.<br>• Submit reports on emission rates or operating parameters that have not been recorded or which exceeded applicable limits. |

NOTE: This table depicts the major provisions of the emission guidelines and does not attempt to show all requirements. The regulatory text of Subpart Ce should be relied upon for a full and comprehensive statement of the requirements of the final guidelines.

TABLE 10.—SUMMARY OF ADDITIONAL REQUIREMENTS UNDER THE EMISSION GUIDELINES FOR EXISTING HMIWI THAT MEET THE RURAL CRITERIA

| Additional requirements |
|---|
| Operator Training and Qualification Requirements:<br>• Complete HMIWI operator training course.<br>• Qualify operators.<br>• Maintain information regarding HMIWI operating procedures and review annually.<br>Inspection Requirements:<br>• Provide for an annual equipment inspection of the designated facility.<br>Waste Management Plan:<br>• Prepare a waste management plan that identifies the feasibility and approach to separate certain components of a health care waste stream.<br>Compliance and Performance Testing Requirements:<br>• Conduct an initial performance test to determine compliance with the PM, CO, CDD/CDF, and Hg emission limits and opacity limit, and establish operating parameters.<br>• Conduct annual tests to determine compliance with the opacity limit.<br>Monitoring Requirements:<br>• Install and maintain equipment to continuously monitor operating parameters including secondary chamber temperature, waste feed rate, bypass stack, and APCD operating parameters as appropriate.<br>• Obtain monitoring data at all times during HMIWI operation.<br>Reporting and Recordkeeping Requirements:<br>• Maintain for 5 years records of results from the initial performance test and all subsequent performance tests, operating parameters, inspections, any maintenance, and operator training and qualification.<br>• Submit the results of the initial performance test and all subsequent performance tests.<br>• Submit reports on emission rates or operating parameters that have not been recorded or which exceeded applicable limits. |

NOTE: This table depicts the major provisions of the emission guidelines and does not attempt to show all requirements. The regulatory text of Subpart Ce should be relied upon for a full and comprehensive statement of the requirements of the final guidelines.

TABLE 11.—COMPLIANCE TIMES UNDER THE EMISSION GUIDELINES FOR EXISTING HMIWI

| Requirement | Compliance time |
|---|---|
| State Plan submittal | Within 1 year after promulgation of EPA emission guidelines. |
| Operator training and qualification requirements. | Within 1 year after EPA approval of State Plan. |
| Inspection requirements | Within 1 year after EPA approval of State Plan. |
| Initial compliance test | Within 1 year after EPA approval of State plan or up to 3 years after EPA approval of State plan if the source is granted an extension. |
| Repeat performance test | Within 12 months following initial compliance test and annually thereafter. |
| Parameter monitoring | Continuously, upon completion of initial compliance test. |
| Recordkeeping | Continuously, upon completion of initial compliance test. |
| Reporting | Annually, upon completion of initial compliance test; semiannually, if noncompliance. |

*B. Significant Issues and Changes*

This section discusses the most significant changes to the guidelines made following the June 20, 1996 **Federal Register** document. Further discussion of these changes as well as other comments and responses regarding the emission guidelines are provided in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b).

As discussed in the 1996 re-proposal, the MACT floor for small existing HMIWI was based on emission limits achievable through use of good combustion alone (i.e., without add-on control). The EPA presented regulatory options more stringent than the MACT floor for small existing HMIWI in the 1996 re-proposal and stated that it had no inclination as to which regulatory

option might be selected for the final emission guidelines for small HMIWI. The EPA solicited public comment on the available regulatory options for the guidelines for small existing HMIWI.

During the public comment period, the EPA received several comments containing suggestions for the final emission guidelines for small existing HMIWI. A number of commenters requested that the emission guidelines for small existing HMIWI be based on the MACT floor. Other commenters requested that the guidelines for small HMIWI require small HMIWI in urban locations to meet emission guidelines more stringent than the MACT floor and allow small HMIWI in rural locations to meet the MACT floor emission limits. These commenters noted that cost-effective alternatives to onsite incineration may not be available to facilities operating small HMIWI in rural locations and that emission limits based on wet scrubbers would cause these facilities financial hardship. Other commenters contended that emission limits for small incinerators consistent with no more than good combustion would result in largely uncontrolled emissions, and would encourage medium-sized units to change their size designation to small by burning less waste per hour while operating more hours per day. These commenters stated that there are cost-effective alternatives to incineration and requested that small existing HMIWI be subject to emission limits consistent with wet scrubbers.

Guidelines for small existing HMIWI based on the use of good combustion and low efficiency wet scrubbing could cause the cost of waste disposal to more than double for facilities that install the equipment necessary to meet the emission guidelines. Even guidelines based on the MACT floor (good combustion alone) would cause a significant increase in costs for such facilities. The EPA's cost projections show that the costs of retrofitting small existing HMIWI to meet the MACT floor would be about $18 million annually, while the cost of going beyond the floor (guidelines based on low efficiency wet scrubbers) for the estimated 1,025 small HMIWI that do not meet the "remote" criteria (discussed later) would be an additional $47 million. However, as noted by commenters and observed by States that have implemented stringent HMIWI regulations, there are a number of cost-effective alternatives to onsite incineration for most facilities that operate small HMIWI. Therefore, many health care facilities operating small HMIWI could switch to alternative means of waste disposal if the emission guidelines are based on the use of good combustion and low efficiency wet scrubbing. In fact, EPA's modeling projects that most existing facilities, except those meeting the "remote" criteria, would find it more economical to switch to alternative means of waste disposal than to retrofit their small incinerators even to meet the MACT floor, and virtually all such facilities would switch rather than retrofit small incinerators with low efficiency wet scrubbers. Under the switching scenario, the costs for non-"remote" small facilities range from $6 to $13 million for guidelines based on the MACT floor, and from $6 to $20 million for guidelines based on low efficiency wet scrubbers. In addition, by making the guidelines for small existing HMIWI only slightly less stringent than those for medium existing HMIWI (the guidelines for small existing HMIWI are based on good combustion and low efficiency wet scrubbers, while those for medium existing HMIWI are based on good combustion and moderate efficiency wet scrubbers), the selected option removes any strong incentive for medium existing facilities to reclassify themselves as small in order to escape more stringent guidelines. The result is that, under the selected option, most medium existing facilities will also switch to alternative means of waste disposal. Unlike the small facilities, most of these medium HMIWI would have found it economical to continue operating if they could have reclassified themselves as small and been required to meet emission limits based on good combustion alone. Thus, most of the emission reduction benefits from going beyond the MACT floor for small existing HMIWI actually come from these medium HMIWI that switch to alternative waste disposal rather than operating as small units subject to emission limits based on good combustion alone (the MACT floor). The additional costs to this group under the switching scenario of going beyond the floor range from $4 to $30 million annually.

While EPA's objective is to adopt MACT emission guidelines that fulfill the requirements of section 129 of the CAA, and not to cause the shutdown of most existing small and medium HMIWI, the EPA believes that the replacement of poorly controlled incinerators with cost effective alternatives that significantly reduce toxic emissions is an appropriate outcome. From a national perspective, guidelines for small existing HMIWI based on good combustion and low efficiency wet scrubbing (and the switching to alternative waste disposal options that EPA believes will result) will minimize emissions of PM, dioxin, acid gases, and metals from small and medium existing HMIWI at a relatively low cost due to the availability of alternative means of waste treatment. As a result, the final emission guidelines for small HMIWI are based on emission limits achievable through the use of good combustion and low efficiency wet scrubbers. These emission limits are more stringent than the MACT floor for small HMIWI.

As some commenters have pointed out, alternative means of medical waste treatment may not be available at a reasonable cost to some facilities that operate small HMIWI in rural or remote locations. Facilities that operate small HMIWI in remote locations could be faced with adverse impacts if required to meet emission limits associated with good combustion and low efficiency wet scrubbing. Therefore, the final emission guidelines subcategorize facilities for purposes of establishing MACT standards based on the location of the facility and the amount of waste burned. The EPA established MACT standards at the respective MACT floors for facilities that meet certain "rural criteria;" which are achievable through the use of good combustion alone. The EPA set MACT standards for all other small HMIWI more stringent than the MACT floors.

The basis for this subcategorization approach is found in section 129(a)(2), which states: "The Administrator may distinguish among classes, types * * * and sizes of units within a category in establishing such standards." This language gives EPA broad discretion to distinguish among units in a category in establishing subcategories, including establishing subcategories based on a unit's location. See *Davis County Solid Waste Management & Energy Recovery Special Services District* v. *EPA*, 101 F.3d 1395, 1405 n.11 (D.C. Cir. 1996), *amended* 108 F.3d 1454 (D.C. Cir. 1997). As discussed above, the EPA believed it was appropriate to subcategorize for purposes of establishing MACT standards, where all MACT standards were at least as stringent as the respective MACT floors.

In the 1996 re-proposal, the EPA discussed the option of adopting emission guidelines with criteria for small existing HMIWI located in rural areas to meet requirements—on a case by case basis—based on the use of good combustion alone. The EPA solicited public comment on this option and on what criteria could be associated with this option to determine if a facility may be faced with cost impacts that warrant special consideration with regard to the emission guidelines.

Following the 1996 re-proposal, the EPA received several comments regarding possible "rural criteria" that may be used if the final guidelines allow rural HMIWI to meet less stringent emission limits. Some commenters suggested that rural criteria be based on distance from a SMSA or population density. Other commenters recommended a weekly limit on amount of waste burned in the small HMIWI and a requirement that no more than 10 percent of the waste burned in the small HMIWI is from an outside facility. Other commenters suggested that facilities operating small rural HMIWI should be required to demonstrate that no alternatives to onsite incineration are available at a reasonable cost. Finally, other commenters suggested considering ambient air quality, good engineering practice stack height, and risk analysis as part of the rural criteria.

The purpose of the rural criteria is to further define those facilities operating small HMIWI in remote areas that may have fewer cost-effective options for waste disposal; in which case, emission guidelines based on wet scrubbers could cause financial hardship. It is difficult to determine precisely which HMIWI have limited waste disposal options, and it is difficult to establish a universal set of criteria that could quantify "hardship." All of the suggestions submitted by commenters with regard to the rural criteria for small HMIWI were considered. However, many of the suggestions would be very difficult to define or implement. Consequently, the rural criteria examined focused on (1) distance from a SMSA, and (2) amount of waste burned per week. The combination of small size, distance from an SMSA, and small amount of waste burned are the most likely indications that commercial services are not available for a reasonable cost.

Distance criteria ranging from 25 to 150 miles from an SMSA in conjunction with weekly waste burning limits ranging from 500 to 3,300 lb/wk were examined to determine the appropriate rural criteria. The final "rural criteria" selected for small existing HMIWI stipulates that: (1) The facility must be located at least 50 miles from the nearest SMSA boundary and (2) the HMIWI operated by the facility may not be used to burn more than 2,000 lb/wk. The 2,000 pound per week criterion was suggested by commenters; focuses the option for less stringent requirements on the smallest HMIWI; and reflects a sufficient quantity of waste to ensure that commercial services are available. The 50 mile criterion added to the 2,000 lb/wk criterion provides the less stringent requirements for less than 10 percent of small HMIWI (over 90 percent of small HMIWI would remain subject to guidelines based on wet scrubbers). It is very likely that commercial services are available within 50 miles of an SMSA, regardless of the amount of waste to be picked up.

Small units with good combustion alone are not left "uncontrolled." Good combustion reduces emissions of PM, CO, and dioxin/furan, and these units remain subject to operator training requirements. Small HMIWI operating with good combustion alone are also required to reduce Hg emissions through pollution prevention. The guidelines also include requirements for routine inspection and maintenance to ensure good combustion. Based on EPA's assessment of costs and other impacts, these less stringent requirements will, themselves, raise the cost of incineration such that alternatives, if available, are likely to be less expensive. In other words, where alternatives are available, guidelines based on good combustion alone are likely to result in switching. Under the MACT guidelines, less than one percent of the waste burned in existing HMIWI will be burned in small rural HMIWI with good combustion controls alone. The final guidelines result in substantial reductions in emissions from the HMIWI source category as a whole. The promulgated emission guidelines for small HMIWI are consistent with section 129 because they reflect the maximum degree of reduction in emissions that can be achieved by small existing HMIWI while avoiding detrimental cost impacts to facilities operating small "remote" HMIWI.

*C. Selection of MACT*

The EPA considered six regulatory options for adoption as the final guidelines for existing HMIWI. These regulatory options are discussed in Appendix B of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). As required by section 129(a)(2) of the CAA, the Administrator reviewed the emissions reductions achievable with each regulatory option and the cost, nonair quality environmental, and energy impacts of the regulatory options. Based on this review, the Administrator determined that the most cost effective and achievable emission guidelines for promulgation are based on emission levels achievable with good combustion and a low efficiency wet scrubber for most small existing HMIWI; good combustion and a moderate efficiency wet scrubber for medium existing HMIWI; and good combustion and a high efficiency wet scrubber for large existing HMIWI. The promulgated emission guidelines allow small HMIWI that meet certain "rural criteria" to meet emission limits achievable with good combustion alone.

The EPA concluded that MACT for most small units should reflect emission limits achievable with good combustion and a low efficiency wet scrubber because the reductions in emissions are substantial, while the cost and economic impacts for most small HMIWI appear minimal. Compared to emission limits achievable with good combustion and low efficiency wet scrubbers, emission limits based on the use of good combustion and moderate or high efficiency wet scrubbers would increase the capital control costs for facilities operating small HMIWI by 15 to 42 percent and would only slightly decrease the emissions of PM from small HMIWI. As a result, good combustion and moderate or high efficiency wet scrubbers were not further considered in the selection of MACT for small HMIWI.

The MACT floor for medium existing HMIWI appears to require the use of good combustion and a moderate efficiency wet scrubber. One regulatory option more stringent than this MACT floor would reflect the use of good combustion and a high efficiency wet scrubber. On a nationwide basis, while this more stringent option would result in a relatively small cost increase, it would also result in only a small decrease in PM emissions. For a typical facility operating a medium HMIWI that installed or upgraded an existing wet scrubber to a high efficiency wet scrubber, air pollution control costs would increase by about 15 to 25 percent. As a result, EPA concluded that the MACT emission limitations for medium existing HMIWI based on the use of good combustion and a moderate efficiency wet scrubber (i.e., the MACT floor) are the most cost effective and achievable. These emission limitations could also be achieved using a dry scrubber with activated carbon.

The MACT floor for large existing HMIWI appears to require the use of good combustion and a high efficiency wet scrubber. Regulatory options more stringent than this MACT floor were not considered for large HMIWI for the reasons discussed below. As a result, EPA concluded that MACT emission limitations for large existing HMIWI based on the use of good combustion and a high efficiency wet scrubber (i.e., the MACT floor) are the most cost

effective and achievable. These emission limitations could also be achieved using a dry scrubber with activated carbon.

The MACT emission limitations for medium and large existing HMIWI were structured so that either a dry scrubber or a wet scrubber could be used to achieve the emission limits. The emission limitations were not based on the use of dry scrubbers exclusively or wet scrubbers exclusively because a dry scrubber typically costs much more than a wet scrubber, and a dry scrubber with activated carbon would result in only a very small additional reduction in dioxin, Pb, and Cd emissions. Furthermore, for existing HMIWI already equipped with wet scrubbers, replacing a wet scrubber with a dry scrubber would be extremely expensive. Similarly, for existing HMIWI already equipped with dry scrubbers, replacing the dry scrubber with a wet scrubber would be extremely expensive. Guidelines based on the use of combined dry/wet scrubbing systems were not considered for medium and large existing HMIWI because such control systems are very expensive and result in only small additional reductions in emissions.

*D. Impacts of the Guidelines*

There are a number of alternatives to onsite incineration of hospital waste and medical/infectious waste, including recycling or direct landfilling of non-infectious waste, and off-site commercial waste disposal or any of several waste disinfection technologies (e.g., steam autoclaving, microwave irradiation, macrowave irradiation, chemical treatment, thermal treatment, and biological treatment) for infectious waste. Many facilities that currently operate onsite HMIWI may find it more cost effective to dispose of their waste using one of these alternatives. As discussed in the June 1996 re-proposal, while further study is warranted, there appears to be no significant or substantial adverse economic, environmental, or health and safety issues associated with the increased use of the alternative waste treatment technologies.

In some cases, facilities that "switch" to alternative methods of waste disposal may further decrease their waste disposal costs by segregating their waste into infectious and noninfectious portions, and recycling or landfilling (rather than treating) their noninfectious waste. To account for facilities switching to alternative methods of waste disposal, the impacts of the guidelines were developed based on three compliance scenarios: no switching (scenario A), switching with waste segregation (scenario B), and switching without waste segregation (scenario C).

The EPA estimates that there are approximately 1,139 existing small HMIWI, 692 existing medium HMIWI, 463 existing large HMIWI, and 79 existing commercial HMIWI in operation today. Scenario A preserves this assumption and estimates the costs of the additional control measures that would be required for these 2,373 existing facilities to meet the guidelines at $172 million annually. The EPA believes that Scenario A is unrealistic and grossly overstates the national costs associated with the guidelines. Under Scenarios B and C, 93 to 100 percent of existing small "non-remote" HMIWI, 60 to 95 percent of existing medium HMIWI, and as many as 35 percent of existing large HMIWI are expected to cease operation. All 79 commercial units and 114 small units meeting the "remote" criteria are assumed to remain in operation. Facilities that cease operation are assumed to find alternate methods of waste disposal. The EPA believes that the total costs of the final guidelines for existing sources will fall somewhere between the $59 million/yr estimate for Scenario B and the $120 million/yr estimate for Scenario C.

Table 12 presents baseline emissions (i.e., emissions in the absence of the MACT emission guidelines) and the range of emissions that are expected to occur under the final MACT guidelines. A range of emissions is presented in Table 12 to account for the emissions that could occur under switching scenarios B and C as a result of the guidelines. Table 12 also presents the percent reduction in emissions achieved under the final MACT guidelines for existing HMIWI.

TABLE 12.—BASELINE EMISSIONS, EMISSIONS AFTER IMPLEMENTATION OF THE FINAL EMISSION GUIDELINES, AND EMISSIONS REDUCTION

[Metric Units]

| Pollutant, units | Baseline | Emissions under the final emission guidelines | Emissions reduction, percent |
|---|---|---|---|
| PM, Mg/yr | 940 | 72 to 120 | 88 to 92. |
| CO, Mg/yr | 460 | 82 to 120 | 75 to 82. |
| CDD/CDF, g/yr | 7,200 | 210 to 310 | 96 to 97. |
| TEQ CDD/CDF, g/yr | 150 | 5 to 7 | 95 to 97. |
| HCl, Mg/yr | 5,700 | 130 to 140 | 98. |
| $SO_2$, Mg/yr | 250 | 170 to 250 | 0 to 30. |
| $NO_x$, Mg/yr | 1,200 | 810 to 1,200 | 0 to 30. |
| Pb, Mg/yr | 11 | 1.4 to 2.2 | 80 to 87. |
| Cd, Mg/yr | 1.2 | 0.19 to 0.30 | 75 to 84. |
| Hg, Mg/yr | 15 | 0.8 to 1.1 | 93 to 95. |

To convert Mg/yr to ton/yr, multiply by 1.1. To convert g/yr to lb/yr, divide by 453.6.

As discussed further in Appendix B of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b), the EPA is not able to calculate a monetized value for most of these emission reductions. However, using "Benefit-Cost Analysis of Selected NSPS for Particulate Matter" as a basis, EPA has calculated a monetized value for reductions in PM emissions using an estimate of $6,075 (1993 dollars) per ton of PM. This yields annualized benefits of PM reductions for the guidelines ranging from $5.5 million to $5.8 million (1993 dollars).

As a result of the MACT guidelines for existing HMIWI, industries that generate hospital waste and/or medical/infectious waste (i.e., hospitals, nursing homes, etc.) are expected to experience average price increases in the range of 0.00 to 0.14 percent, depending on the

industry. These industries are expected to experience output and employment impacts in the range of 0.00 to 0.18 percent. In addition, the revenue impacts for these industries are expected to range from an increase of 0.05 percent to a decrease of 0.04 percent as a result of the guidelines. For hospitals, 0.03 percent is the estimated price increase necessary to recover annual control costs. The expected average price increase for each hospital patient-day is expected to be less than 30 cents. The average price impact for the commercial HMIWI industry is approximately a 2.6 percent increase in price.

Facilities with onsite HMIWI that are currently uncontrolled may experience impacts ranging from 0.03 to 1.83 percent, depending on the industry. For many of these facilities, the economic impacts of switching to an alternative method of waste disposal are much lower than the economic impacts of choosing to install emission control equipment. The decision to switch to an alternative method of waste disposal should preclude any facilities from experiencing a significant economic impact. The impacts that would be incurred by medical/infectious waste generators that currently use an offsite waste incineration service range from 0.00 to 0.02 percent and are considered negligible impacts.

The option of switching to an alternative method of waste disposal will be an attractive option for many facilities that currently operate onsite HMIWI and should preclude most facilities from experiencing a significant economic impact. However, two types of HMIWI operators may not be able to switch to an alternative: commercial HMIWI operators, because their line of business is commercial incineration; and small, rural, remote HMIWI, which may not have access to alternative waste disposal methods. For commercial HMIWI operators, only three of the 59 facilities operating the 79 commercial HMIWI in the HMIWI inventory were found to be significantly impacted by the regulation. As discussed in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Analysis of Economic Impacts for Existing Sources" (EPA–453/R–97–007b), commercial HMIWI are considered to be significantly impacted if the price impact (i.e., the price increase that would be necessary to recover compliance costs) on an individual facility exceeds the market price increase (2.62 percent) by more than 2 percentage points (i.e., above 4.6 percent). Price increases at these three facilities are calculated as 9.58 percent, 11.13 percent, and 18.36 percent. These facilities may not have to raise their prices this much to remain profitable, since they are completely uncontrolled in the baseline and therefore may currently enjoy a cost advantage over their competitors (most of which are at least partially controlled in the baseline). Also, demand may increase as a result of switching away from onsite incineration. In this latter case, increased revenues (which could offset control costs) may result in one of two ways: either by allowing a larger increase in price, or by providing an increase in the amount of waste coming to the facility (i.e., increased capacity utilization). Impacts are not significant for small, rural, remote HMIWI operators because the final guidelines allow good combustion alone where alternatives to onsite incineration might be unavailable.

The economic impact analysis examines possible economic impacts that may occur in industries that will be directly affected by this regulation. Therefore, the analysis includes an examination of industries that generate hospital waste or medical/infectious waste or dispose of such waste. Secondary impacts such as subsequent impacts on air pollution device vendors and HMIWI vendors are not estimated due to data limitations. Air pollution control device vendors are expected to experience an increase in demand for their products due to the regulation. This regulation is also expected to increase demand for commercial HMIWI services. However, due to economies of scale, this regulation is expected to shift demand from smaller incinerators to larger incinerators. Therefore, small HMIWI vendors potentially may be adversely affected by the regulation. Lack of data on the above effects prevent quantification of the economic impacts on these secondary sectors.

The total national usage of natural gas for HMIWI combustion controls is expected to increase by less than 16.6 million cubic meters per year (MMm$^3$/yr) (586 million cubic feet per year [$10^6$ ft$^3$/yr]). The total national usage of electrical energy for the operation of add-on control devices as a result of the final MACT guidelines is expected to increase by less than 259,000 megawatt hours per year (MW-hr/yr) (883 billion British thermal units per year [$10^9$ Btu/yr]). As discussed in the 1996 re-proposal, compared to the amount of energy used by health care facilities such as hospitals (approximately 2,460 MMm$^3$/yr of natural gas and 23.2 million MW-hr/yr of electricity) the increase in energy usage that results from implementation of the HMIWI emission guidelines is insignificant.

Less than 211,000 Mg/yr (233,000 tons/yr) of additional solid waste is expected to result from the adoption of the final MACT guidelines. As discussed in the 1996 re-proposal, compared to municipal waste, which is disposed in landfills at an annual rate of over 91 million Mg/yr (100 million tons/yr), the increase in solid waste from the implementation of the final HMIWI guidelines is insignificant.

Less than 198 million gallons of additional wastewater would be generated by HMIWI as a result of the final emission guidelines. This amount is the equivalent of wastewater produced annually by four large hospitals. Therefore, when considering the wastewater produced annually at health care facilities nationwide, the increase in wastewater resulting from the implementation of the MACT emission guidelines for existing HMIWI is insignificant.

## VI. Administrative Requirements

This section addresses the following administrative requirements: Docket, Paperwork Reduction Act, Executive Orders 12866 and 12875, Unfunded Mandates Reform Act, Regulatory Flexibility Act, Small Business Regulatory Enforcement Fairness Act, and Clean Air Act Procedural Requirements.

### *A. Docket*

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The principal purposes of the docket are: (1) To allow interested parties to identify and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review, except for interagency review material. The docket number for this rulemaking is A–91–61. Information on how to obtain documents from the docket was provided in the **ADDRESSES** section at the beginning of this preamble.

### *B. Paperwork Reduction Act*

The information collection requirements in this rule have been submitted for approval to OMB under the Paperwork Reduction Act. An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1730.02) and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U. S. Environmental Protection Agency (2136); 401 M St., S.W.; Washington, DC 20460 or by calling (202) 260–2740.

This ICR document is also available electronically via the Internet. See the **SUPPLEMENTARY INFORMATION** section of this preamble for information on accessing this document via the Internet.

The information required to be collected by this rule is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of sections 114 and 129(c) of the CAA. All information submitted as part of a report to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in Title 40, Chapter 1, part 2, subpart B—Confidentiality of Business Information (see 40 CFR Part 2; 41 FR 36902, September 1, 1976, amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The Agency predicts that somewhere between 2 and 14 new HMIWI will be constructed each year after implementation of the NSPS. The total annual reporting and recordkeeping burden summarized in the ICR document for this collection averaged over the first 3 years of the NSPS application to new HMIWI is estimated to be about 14,106 person hours per year if 14 new HMIWI are constructed each year. This burden estimate includes the time needed to review instructions, search existing data sources, gather and maintain the data needed, and complete and review the collection of information. Efforts were made to reduce the burden on facilities installing new HMIWI by allowing them to: (1) Monitor operating parameters rather than continuously monitor emissions using CEMS; (2) test emissions once every 3 years instead of annually if they demonstrate that they consistently meet the emissions requirements; (3) retest emissions of PM, CO, and HCl rather than emissions of all pollutants; and (4) submit reports semiannually (or annually if no exceedances occur) rather than quarterly as was originally proposed.

Comments on the ICR document are requested, including the Agency's need for the information presented in this ICR document, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden. Send comments on the ICR to the Director, OPE Regulatory Information Division; U. S. Environmental Protection Agency (2136); 401 M St. S.W.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. N.W.; Washington, DC 20503; marked "Attention: Desk Officer for EPA." Include the ICR number in any correspondence. Since the OMB is required to make a decision concerning the ICR between 30 and 60 days after today's request for comment, a comment to OMB is best assured of having its full effect if OMB receives it by October 15, 1997. The EPA will publish a response to OMB and public comments on the information collection requirements contained in this document in a subsequent **Federal Register** document.

*C. Executive Order 12866*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether a regulatory action is "significant," and therefore, subject to OMB review and the requirements of the Executive Order. The Order defines "significant" regulatory action as one that is likely to lead to a rule that may:

1. Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or Tribal governments or communities;
2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
3. Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the EPA considers these promulgated standards and guidelines to be "significant." As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public docket for this rulemaking.

Also, in accordance with the provisions of the Executive Order regarding "significant regulatory actions," EPA has prepared assessments of the costs and benefits of the rule and of "potentially effective and reasonably feasible alternatives." These assessments are contained in four documents: "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Analysis of Economic Impacts for Existing Sources" (EPA–453/R–97–007b), "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Analysis of Economic Impacts for New Sources" (EPA–453/R–97–008b), "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Regulatory Impact Analysis for New and Existing Sources" (EPA–453/R–07-009b), and Appendices A and B of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–970–006b). The selected options for both the New Source Performance Standards and the Emissions Guidelines are identified as regulatory option 2 in these documents. Several other options, both more and less stringent than the selections options, are also analyzed. A summary of these analyses is included below in Section VI.D.2 of this preamble.

*D. Unfunded Mandates Reform Act*

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a statement to accompany any rule where the estimated costs to State, local, or Tribal governments, or to the private sector, will be $100 million or more in any 1 year. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly impacted by the rule. Under section 205(a), the EPA must select the "least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule" and is consistent with statutory requirements. The EPA has complied with section 205 of the Unfunded Mandates Act, by promulgating a rule that is the most cost-effective alternative for regulation of these sources that meets the statutory requirements under the Clean Air Act.

The unfunded mandates statement under section 202 must include: (1) A citation of the statutory authority under which the rule is proposed, (2) an assessment of the costs and benefits of the rule including the effect of the mandate on health, safety and the environment, and the Federal resources available to defray the costs, (3) where feasible, estimates of future compliance costs and disproportionate impacts upon particular geographic or social segments of the nation or industry, (4) where relevant, an estimate of the effect on the national economy, and (5) a description of the EPA's consultation with State, local, and Tribal officials.

Since this rule is estimated to impose costs to the private sector and government entities in excess of $100 million per year, it is considered a significant regulatory action. Therefore, EPA has prepared the following statement with respect to Sections 202 through 205 of the Unfunded Mandates Act.

1. Statutory Authority

This rule establishes emission guidelines for existing HMIWI and standards of performance for new HMIWI pursuant to sections 111 and 129 of the CAA. Section 129(a)(2) requires the Administrator to promulgate standards for new solid waste incinerator units and emission guidelines for existing units that "reflect the maximum degree of reduction in emissions of air pollutants listed under section (a)(4) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category. The Administrator may distinguish among classes, types, and sizes of units within a category in establishing such standards . . ." This is commonly referred to as maximum achievable control technology, or MACT. Section 129(a)(2) further defines a minimum level of stringency that can be considered for MACT standards—commonly referred to as the MACT floor—which for new units, is the level of control achieved by the best controlled similar unit, and for existing units, is the level of control achieved by the average of the best performing 12 percent of units in the category.

Control technologies and their performance are discussed in the June 1996 re-proposal (61 FR 31736, June 20, 1996). For the promulgated standards and guidelines, EPA divided the HMIWI population into three size categories which reflect technical differences in HMIWI design: small (≤200 lb/hr), medium (>200 to ≤500 lb/hr), and large (>500 lb/hr). The EPA considered emission reduction, costs, and energy impacts, as required by the statutory language of section 111 of the CAA, in selecting the promulgated MACT standards and guidelines. The promulgated standards and guidelines achieve a significant reduction in HMIWI emissions as outlined in sections IV.D and V.D and in section 2 "Social Costs and Benefits" (below). The cost impacts of the standards and guidelines are presented in section 2 "Social Costs and Benefits" (below). Consultations with the public entities and affected industries as required by the Unfunded Mandates Act are described in section 4, "Consultation with Government Officials" (below). The energy impacts are discussed in sections IV.D and V.D of this notice. Regarding EPA's compliance with section 205(a), the EPA considered a reasonable number of alternatives which are discussed in section 2.b, "Regulatory Alternatives Considered" (below).

2. Social Costs and Benefits

This assessment of the costs and benefits to State, local, and Tribal governments of the NSPS and guidelines is based on the regulatory impact analysis (EPA–453/R–97–009b). Measuring the social costs of the rule requires identification of the affected entities by ownership (public or private), consideration of regulatory alternatives, calculation of the regulatory compliance costs for each affected entity, and assessment of the market implications of the additional pollution control costs. Calculating the social benefits of the NSPS and guidelines requires estimating the anticipated reductions in emissions at HMIWI due to regulation, identification of the harmful effects of exposure to HMIWI emissions, and valuing the expected reductions in these damages to society.

a. *Affected Entities.* Approximately 2,400 HMIWI are estimated to be in operation in this country, and this inventory estimate was used to estimate the cost of the EG to affected entities. While the inventory distinguishes the size of HMIWI and indicates whether the HMIWI are located at commercial waste disposal facilities, other information is not precisely known such as the types of entities (hospitals, laboratories, nursing homes, and other) and ownership characteristics (public versus private) of entities operating onsite HMIWI. However, the majority of directly affected entities are not likely to be owned or operated by State, local, or Tribal governments. This statement is based upon the ownership characteristics of these industries rather than the ownership characteristics of the portion of these industries operating HMIWI. Approximately 26.5 percent of the 6,500 hospitals operating in this country are designated to have affiliations with State and local governments. The remaining 73.5 percent have private ownership; are designated nongovernment, not-for-profit; or have Federal government affiliations. Nearly 20,900 nursing homes and 4,200 commercial research labs operate in the United States. Of these nursing homes and research labs, approximately 28.4 and 8.2 percent, respectively are tax exempt and may have government affiliations or be nonprofit organizations. Finally, 59 commercial HMIWI operate in this country, and these facilities are predominately privately owned. Since the number of HMIWI operating is only a fraction of the total number of hospitals, laboratories, nursing homes, and other entities in existence in this country, only a fraction of these entities will be directly impacted by the HMIWI regulations. Other firms generating hospital, medical, and infectious waste and sending the waste offsite for disposal will be indirectly affected by the regulation to the extent waste disposal fees increase. The above affected entity information is equally relevant to the NSPS since no additional information is known about the types of entities or ownership characteristics expected for new HMIWI.

b. *Regulatory Alternatives Considered.* Under section 205 of the Unfunded Mandates Act, the EPA must identify and consider a reasonable number of regulatory options before promulgating a rule for which a budgetary impact statement must be prepared. The Agency must select from those alternatives the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule, unless the EPA explains why this alternative is not selected or the selection of this alternative is inconsistent with the law.

The two broad categories of regulatory standards available include design standards and emission standards. Design standards specify the type of control equipment polluters must install, whereas emission standards specify the maximum quantity of a given pollutant that any one polluter may release.

Design standards offer the least flexible approach considered in this analysis. Owners of HMIWI would have to install the specified control equipment regardless of the additional emission reductions achieved or the relative cost of alternative means of emission reductions.

Emission standards allow greater flexibility in the methods used to reduce emissions. Owners of HMIWI are free to meet the emission limit in the manner that is least costly to them. Consequently, for a given level of emission reductions, emission standards are generally less costly than design standards. Furthermore, emission standards give owners of HMIWI an incentive to develop more effective means of controlling emissions. In addition, the CAA requires the

Administrator to promulgate emission standards unless such standards are not feasible. Since emission standards for HMIWI are feasible, the EPA is barred from promulgating design standards for HMIWI.

Even though emission standards generally result in a more efficient allocation of costs than design standards, uniform emission standards can be more costly than necessary. Uniform emission standards require the same level of emission control of every discharger. Because marginal control costs differ for plants of different sizes, different technologies, different levels of product recovery (i.e., in the chemical industry), and different levels of baseline control, an effective solution can be reached if standards are carefully tailored to the special characteristics of each discharger. This type of standard is referred to as a differentiated standard.

In formulating the regulatory options for HMIWI, EPA divided the HMIWI population into three size categories: small (≤200 lb/hr), medium (>200 to ≤500 lb/hr), and large (>500 lb/hr). A number of regulatory options were considered for each size classification. The regulatory options for the three selected size classifications did not specify a particular control technology; rather, they specified emission limits that facilities would be required to meet.

A detailed discussion of the regulatory options considered for the final standards and guidelines is presented in Appendices A and B of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). For the most part, the final standards and guidelines reflect the MACT floor, the least stringent regulatory option EPA may adopt for the final rule. In two cases (medium new units and small existing units), MACT was selected at a level more stringent than the MACT floor. A description of EPA's decision regarding medium new units is presented in section IV.C of this notice, and a description of EPA's decision regarding small existing units is presented in sections V.B and V.C of this notice. The EPA believes that the final standards and guidelines reflect the least costly, most cost-effective, and least burdensome regulatory option that achieves the objectives of the rule.

c. *Social Cost and Benefits.* The regulatory impact analysis, including the Agency's assessment of costs and environmental benefits, is detailed in the "Medical Waste Incinerators—Background Information for Proposed Standards and Guidelines: Regulatory Impact Analysis for New and Existing Facilities," (EPA 453/R–94–063a). The regulatory impact assessment document has been updated for the final rule and is entitled "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Regulatory Impact Analysis for New and Existing Facilities" (EPA–453/R–97–009b). Estimates of the costs and benefits of the various regulatory options considered are discussed in the revised regulatory impact analysis document and in Appendices A and B of "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). Quantitative estimates of the costs, impacts, and benefits associated with the final NSPS and EG are presented in sections IV.D and V.D of this notice. These estimates are summarized below.

Total costs for the selected options are estimated to range from $71 million per year under Scenario B, which assumes switching and substantial additional waste segregations, to $146 million per year under Scenario C, which assumes switching but little opportunity for additional waste segregations. As a point of reference, EPA also calculated the costs under Scenario A, in which all existing HMIWI install retrofit technology and all new HMIWI projected to be built over the next 5 years install control technology to comply with the guidelines and standards. Under Scenario A, the total costs are estimated to be $210 million per year. The EPA does not believe Scenario A represents a realistic outcome, given the availability of alternative waste disposal options that would be cheaper than installing control technology for many facilities. Thus, EPA believes the actual costs will fall within the range estimated for Scenarios B and C.

Implementation of the NSPS and EG for HMIWI is expected to reduce emissions of HAP, dioxin/furan, and criteria air pollutants. Reduction in a variety of HAP including Cd, HCl, Pb, and Hg is expected as a result of the regulation. Dioxin/furan emissions are also expected to be reduced. In addition, decreases in the following criteria air pollutants are anticipated: PM, $SO_2$, CO, and $NO_X$. Table 6 in section IV.D gives a quantitative estimate of the emissions reductions expected from the NSPS, and Table 12 in section V.D gives a quantitative estimate of the emissions reductions expected from the EG. Air quality benefits resulting from the air quality improvements resulting from this regulation include a reduction in adverse health effects associated with inhalation of the above pollutants as well as improved welfare effects such as improved visibility and crop yields.

While the Agency believes that the health and environmental benefits of this rule are quite significant, the EPA is not currently able to quantitatively evaluate all human and environmental benefits associated with the rule's air quality improvements, and is even more limited in its ability to assign monetary values to these benefit categories. Categories that are not evaluated include several health and welfare endpoints (categories), as well as entire pollutant categories. Consequently, the discussion of benefits included in the Regulatory Impact Analysis and summarized here is primarily qualitative.

However, monetized benefits were calculated for PM emissions reductions. These benefits were estimated using a valuation of $6075/ton, based on analyses of PM emissions reductions benefits from other rules that are discussed in the EPA document, "Benefit-Cost Analysis of Selected NSPS for Particulate Matter." Total PM emissions reduction benefits from this rule are estimated to range from $5.5 million under Scenario B to $5.8 million under Scenario C. Thus *net* monetized costs (after subtracting out monetized benefits) are estimated to range from $65 million under Scenario B to $140 million under Scenario C. Although the monetized benefits associated with PM emission reductions are compared to the estimated annualized emission control costs of the regulation, EPA notes that, because most categories of emissions reductions cannot be monetized, the monetized benefits and therefore the net benefits are understated (in this case annualized costs exceed the monetized benefits so net costs are overstated) for the regulation.

A qualitative discussion of the pollutants that do not have a monetary benefit value shows the significance of other benefits achieved by the rule, Emission reductions of Cd, Pb, HCl, and Hg are expected to occur as a result of the HMIWI rule. Health effects associated with exposures to Cd and Pb include probable carcinogenic effects. Respiratory effects are associated with exposure to Cd, HCl, and Hg. The HAP emitted from HMIWI facilities have also been associated with effects on the central nervous system, neurological system, gastrointestinal system, mucous membranes, and kidneys.

Reduction in emission of dioxin/furan are expected as a result of the HMIWI

rule. Exposure to dioxin/furan has been linked to reproductive and developmental effects, changes in hormone levels, and chloracne. Toxic Equivalent Quantity, or TEQ, has been developed as a measure of the toxicity of dioxin/furan. The TEQ measures the more chlorinated compounds of dioxin/furan and thus provides a better indicator of the part of dioxin/furan that has been linked to the toxic effects associated with dioxin/furan. Unfortunately, quantitative relationships between the toxic effects and exposure to dioxin/furan have not been developed. Therefore, quantitative estimates of the health effects of dioxin/furan emission reductions are not estimated.

Emission reductions are also anticipated for criteria air pollutants. The health effects associated with exposure to PM include premature mortality as well as morbidity. The morbidity effects of PM exposure have been measured in terms of increased hospital and emergency room visits, days of restricted activity or work loss, increased respiratory symptoms, and reductions in lung function. The welfare effects of PM exposure include increased soiling and visibility degradation. Sulfur dioxide has been associated with respiratory symptoms and pulmonary function changes in exercising asthmatics and may also be associated with respiratory symptoms in nonasthmatics. In addition to the effects on human health, $SO_2$ has also been linked to adverse welfare effects, such as materials damage, visibility degradation, and crop and forestry damage. Carbon monoxide affects the oxygen-carrying capacity of hemoglobin and, at current ambient concentrations, has been related to adverse health effects among persons with cardiovascular and chronic respiratory disease. Both congestive heart failure and angina pectoris have been related to CO exposure. Nitrogen oxides have also been shown to have an adverse impact on both human health and welfare. The effects associated with $NO_X$ include respiratory illness, damages to materials, crops, and forests, and visibility degradation.

3. Effects on the National Economy

The Unfunded Mandates Act requires that the EPA estimate "the effect" of this rule

On the national economy, such as the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services, if and to the extent that the EPA in its sole discretion determines that accurate estimates are reasonably feasible and that such effect is relevant and material.

As stated in the Unfunded Mandates Act, such macroeconomic effects tend to be measurable, in nationwide econometric models, only if the economic impact of the regulation reaches 0.25 to 0.5 percent of gross domestic product (in the range of $15 billion to $30 billion). A regulation with a smaller aggregate effect is highly unlikely to have any measurable impact in macroeconomic terms unless it is highly focused on a particular geographic region or economic sector. Because the economic impact of the HMIWI regulation is less than $1.5 billion, no estimate of this rule's effect on the national economy has been conducted.

4. Consultation with Government Officials

The Unfunded Mandates Act requires that the EPA describe the extent of the EPA's consultation with affected State, local, and Tribal officials, summarize the officials' comments or concerns, and summarize the EPA's response to those comments or concerns. In addition, section 203 of the Unfunded Mandates Act requires that the EPA develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a proposal.

Throughout the development of these rules (pre-proposal through pre-promulgation phases), the EPA consulted with representatives of affected State and local governments, including the U.S. Conference of Mayors, the National Governors Association, the National League of Cities, and the National Association of Counties, to inform them of the 1995 proposed rule and determine their concerns. The EPA also consulted with representatives from other entities affected by the 1995 proposed rule, such as the National Association of Public Hospitals, the American Hospital Association, the Sierra Club, and the Natural Resources Defense Council.

As part of EPA's consultation efforts in this rulemaking, the EPA mailed a copy of the draft regulatory package for the February 1995 proposed HMIWI standards and guidelines to each of the associations mentioned above and to several State and local governments. The EPA also mailed a copy of the February 1995 draft regulatory package to many other associations and stakeholders. At least 60 draft regulatory packages were delivered to government agencies, associations, and stakeholders. Interested parties who were not sent a draft regulatory package were mailed an announcement of the 1995 proposed HMIWI regulations, information on where to obtain a copy of the proposal, and notice of a public meeting held to discuss the proposal and answer any questions to allow stakeholders to better formulate their written comments.

Following the 1995 proposal and prior to the June 1996 re-proposal, the EPA held several public meetings to discuss changes in the HMIWI regulations and to allow opportunity for additional public input. Prior to each meeting, a notice of the meeting and the topics to be discussed was delivered to over 300 stakeholders and government officials. Additionally, many meetings were held with smaller expert groups (e.g., environmental groups, STAPPA/ALAPCO, NAPH, etc.) to discuss specific issues and allow for additional comment. With these efforts, the EPA believes that every affected State and local government, association, and stakeholder, was made aware of the HMIWI rulemaking, provided with the necessary information, and given ample opportunity for input.

Following the 1995 proposal and the 1996 re-proposal, comment letters were received from State, local, and Tribal governments. Additional comments were expressed by State, local, and Tribal governments in meetings held during the course of the rulemaking. Many of the commenters suggested that EPA consider "tiering" the standards and guidelines using HMIWI size categories most often used by State environmental agencies. For the most part, these commenters supported the size categories presented in the 1996 re-proposal. Other commenters expressed concern about the lack of medical waste disposal options for facilities in rural locations and suggested that the Agency consider location when developing the standards and guidelines. Many of the commenters requested that the originally proposed broad definition of medical waste be narrowed for the final HMIWI regulations. Some commenters requested that the EPA exclude crematories and incinerators used solely to burn pathological waste from the HMIWI regulations. Also, several commenters requested that the EPA revise the 1995 proposed operator training requirements to allow State-approved programs and onsite operator training.

The EPA has incorporated the suggestions of State, local, and Tribal governments as well as suggestions from other stakeholders into the standards and guidelines being promulgated today. As a result of consultations with affected entities, the final HMIWI standards and guidelines: (1) Subcategorize HMIWI based on the size

categories and technical distinctions most often used by States; (2) allow existing facilities that meet certain rural criteria and operate small HMIWI (≤200 lb/hr) to meet less stringent emission limits; (3) define HMIWI through use of a narrow definition of medical waste which recognizes that most hospital waste is not infectious and can be recycled or disposed of as municipal-type waste; (4) exclude crematories and pathological incinerators; (5) allow for HMIWI operator training and qualification to be obtained through a State-approved program, which may allow facilities to provide training onsite; and (6) focus the regulations on incineration units whose primary purpose is disposal of hospital waste and/or medical/infectious waste by providing an exemption for units burning 10 percent or less hospital waste and medical/infectious waste.

Documentation of the EPA's consideration of comments on the 1995 proposal is provided in the 1996 re-proposal notice. Documentation of EPA's consideration of comments on the 1996 re-proposal is provided in "Hospital/Medical/Infectious Waste Incinerators: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–97–006b). Refer to the **SUPPLEMENTARY INFORMATION** and **ADDRESSES** sections of this preamble for information on how to acquire copies of these documents.

As discussed in section VI.F, the number of small entities that are significantly affected by the HMIWI regulation is not expected to be substantial. The full analysis of potential regulatory impacts on small organizations, small governments, and small businesses is included in the economic impact assessment in the docket and is listed at the beginning of today's document under **SUPPLEMENTARY INFORMATION.** Because the number of small entities that are likely to experience significant economic impacts as a result of the HMIWI regulation is not expected to be substantial, no plan to inform and advise small governments is required under section 203 of the Unfunded Mandates Act. However, as described above, the EPA has communicated and consulted with small governments and businesses that will be affected by the standards and guidelines, keeping them informed about the content of this promulgation.

*E. Executive Order 12875*

To reduce the burden of Federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled "Enhancing the Intergovernmental Partnership." Under Executive Order 12875, the EPA is required to consult with representatives of affected State, local, and Tribal governments, and keep these affected parties informed about the content and effect of the promulgated standards and emission guidelines. Section II.F of this notice provides a brief account of the actions that the EPA has taken to communicate and consult with the affected parties. Because this regulatory action imposes costs to the private sector and government entities in excess of $100 million per year, the EPA pursued consultations, the preparation of an unfunded mandates statement, and other requirements of the Unfunded Mandates Reform Act. The requirements of the Unfunded Mandates Reform Act were met for this rulemaking as presented under VI.D of this notice and also fulfill the requirements of Executive Order 12875.

*F. Regulatory Flexibility Act (RFA) and Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)*

Section 605 of the Regulatory Flexibility Act (RFA) requires Federal agencies to give special consideration to the impacts of regulations on small entities, which are small businesses, small organizations, and small governments. The major purpose of the RFA is to keep paperwork and regulatory requirements from getting out of proportion to the scale of the entities being regulated without compromising the objectives of, in this case, the CAA.

The President signed the Small Business Regulatory Enforcement Fairness Act (SBREFA) into law on March 29, 1996. The SBREFA amended the RFA to strengthen the RFA's analytical and procedural requirements. The SBREFA also made other changes to agency regulatory practices as they affect small entities.

Finally, SBREFA established a new mechanism for expedited Congressional review of virtually all agency rules.

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. The Administrator also has determined that the EG and NSPS for HMIWI will not have a significant economic impact on a substantial number of small entities.

The U.S. Small Business Administration (SBA) definitions pertaining to business size are either specified by number of employees or sales revenue. For analysis of the regulations being promulgated today, the EPA considers a small business or small organization to be one with gross annual revenue less than $5 million or one with less than 500 employees. The EPA considers a small government to be one that serves a population less than 50,000. Three types of small "entities" are impacted by the regulation: small businesses, small nonprofit organizations, and small governmental jurisdictions. Examples of impacted businesses include for-profit hospitals and tax-paying nursing homes. Examples of impacted nonprofit organizations include not-for-profit hospitals and, in many cases, tax-exempt nursing homes. Examples of impacted governmental jurisdictions include those (e.g., municipalities, counties, States) that operate hospitals and probably some tax-exempt nursing homes. For a description of EPA's outreach efforts to these small entities and the general public, see section II.F of this preamble.

In accordance with the RFA as amended by the SBREFA and current EPA Guidance, an analysis of impacts of the EG and NSPS on small "entities" " including small businesses, small nonprofit organizations, and small governmental jurisdictions " was performed. The economic impact analysis indicates that neither the EG nor the NSPS will have a "significant economic impact on a substantial number of small entities" under any regulatory option. Impacts are not significant for the vast majority of medical waste generators that send their waste offsite to be treated and disposed. Impacts are also not significant for the great majority of HMIWI operators that would have the opportunity to switch to an alternative method of medical waste treatment and disposal if control costs are prohibitive. Some significant impacts were found for commercial HMIWI operators and for small onsite HMIWI operators that are remote from an urban area. These facilities might not have the opportunity to switch to an alternative medical waste treatment and disposal method " commercial HMIWI operators because medical waste incineration is their line of business, and small, remote HMIWI because they may not have access to commercial incineration services. However, the number of such facilities that are both significantly impacted under the regulatory option selected for promulgation and "small" would be, at the most, only a few, and would therefore not be substantial.

*G. Submission to Congress and the General Accounting Office*

Under 5 U.S.C. 801(a)(1)(A) of the Administrative Procedures Act, as added by the SBREFA of 1996, the EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is a "major rule" as defined by 5 U.S.C. 804(2).

*H. Clean Air Act Procedural Requirements*

The following procedural requirements of the CAA are addressed: Administrative listing, periodic review, external participation, and economic impact assessment.

1. Administrator Listing—Sections 111 and 129 of the Clean Air Act

Section 129 of the 1990 Amendments to the CAA directs the Administrator to promulgate standards for new HMIWI and guidelines for existing HMIWI. Section 129(a) states that the standards and guidelines are promulgated under both sections 129 and 111 of the Clean Air Act.

2. Periodic Review—Sections 111 and 129 of the Clean Air Act

Sections 111 and 129 of the CAA require that the standards and guidelines be reviewed not later than 5 years following the initial promulgation. At that time and at 5-year intervals thereafter, the Administrator shall review the standards and guidelines and revise them if necessary. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements.

3. External Participation

In accordance with section 117 of the CAA, publication of this promulgation was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies. See section II.F of this preamble for a discussion of EPA's consultation efforts.

4. Economic Impact Assessment

Section 317A of the CAA requires the EPA to prepare an economic impact assessment for any standards or guidelines promulgated under section 111(b) of the CAA. An economic impact assessment was prepared for the promulgated standards and guidelines. In the manner described in the sections of this preamble regarding the impacts of and rationale for the promulgated standards and guidelines, the EPA considered all aspects of the economic impact assessment in promulgating the standards and guidelines. The economic impact assessment is included in the list of key technical documents at the beginning of today's notice under **SUPPLEMENTARY INFORMATION.**

**List of Subjects in 40 CFR Part 60**

Environmental protection, Air pollution control, Intergovernmental relations, Incorporation by reference, Reporting and recordkeeping requirements.

Dated: August 15, 1997.

**Carol M. Browner,**

*Administrator.*

Part 60, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

## PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 is revised to read as follows:

**Authority:** 42 U.S.C. 7401, 7411, 7413, 7414, 7416, 7429, 7601 and 7602.

### Subpart A—[Amended]

2. Section 60.17. is amended by removing from paragraph (b)(1) the reference "60.244(f)(2)"; and by adding new paragraphs (k) and (l) to read as follows:

**§ 60.17 Incorporation by reference.**

* * * * *

(k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675–2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–124), Room M–1500, 401 M Street SW, Washington, DC.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0–87258–673–5. IBR approved for § 60.35e and § 60.55c.

(l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–125), Room M–1500, 401 M Street SW, Washington, DC.

(1) OMB Bulletin No. 93–17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93–192–664. IBR approved for § 60.31e.

3. Section 60.30 is revised to read as follows:

**§ 60.30 Scope.**

The following subparts contain emission guidelines and compliance times for the control of certain designated pollutants in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part.

(a) Subpart Ca—[Reserved]

(b) Subpart Cb—Municipal Waste Combustors.

(c) Subpart Cc—Municipal Solid Waste Landfills.

(d) Subpart Cd—Sulfuric Acid Production Plants.

(e) Subpart Ce—Hospital/Medical/Infectious Waste Incinerators.

4. Part 60 is amended by adding a new subpart Ce to read as follows:

**Subpart Ce—Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators**

Sec.

60.30e Scope.
60.31e Definitions.
60.32e Designated facilities.
60.33e Emission guidelines.
60.34e Operator training and qualification guidelines.
60.35e Waste management guidelines.
60.36e Inspection guidelines.
60.37e Compliance, performance testing, and monitoring guidelines.
60.38e Reporting and recordkeeping guidelines.
60.39e Compliance times.
Table 1 to Subpart Ce—Emission Limits for Small, Medium, and Large HMIWI
Table 2 to Subpart Ce—Emission Limits for Small HMIWI which meet the criteria under § 60.33e(b)

### Subpart Ce—Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators

**§ 60.30e Scope.**

This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from hospital/medical/infectious waste incinerator(s) (HMIWI) in accordance with sections 111 and 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines supersede the provisions of § 60.24(f) of subpart B of this part.

**§ 60.31e Definitions.**

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and in subparts A, B, and Ec of this part.

*Standard Metropolitan Statistical Area* or *SMSA* means any areas listed in OMB Bulletin No. 93–17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993 (incorporated by reference, see § 60.17).

**§ 60.32e Designated facilities.**

(a) Except as provided in paragraphs (b) through (h) of this section, the designated facility to which the guidelines apply is each individual HMIWI for which construction was commenced on or before June 20, 1996.

(b) A combustor is not subject to this subpart during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in § 60.51c) is burned, provided the owner or operator of the combustor:

(1) Notifies the Administrator of an exemption claim; and

(2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(c) Any co-fired combustor (defined in § 60.51c) is not subject to this subpart if the owner or operator of the co-fired combustor:

(1) Notifies the Administrator of an exemption claim;

(2) Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(3) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(d) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(e) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of this part (standards or guidelines for certain municipal waste combustors) is not subject to this subpart.

(f) Any pyrolysis unit (defined in § 60.51c) is not subject to this subpart.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this subpart.

(h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with emission guidelines under this subpart are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of subpart Ec (see § 60.50c).

(i) Beginning September 15, 2000, or on the effective date of an EPA approved operating permit program under Clean Air Act title V and the implementing regulations under 40 CFR part 70 in the State in which the unit is located, whichever date is later, designated facilities subject to this subpart shall operate pursuant to a permit issued under the EPA-approved operating permit program.

**§ 60.33e Emission guidelines.**

(a) For approval, a State plan shall include the requirements for emission limits at least as protective as those requirements listed in Table 1 of this subpart, except as provided for in paragraph (b) of this section.

(b) For approval, a State plan shall include the requirements for emission limits at least as protective as those requirements listed in Table 2 of this subpart for any small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (defined in § 60.31e) and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste. The 2,000 lb/week limitation does not apply during performance tests.

(c) For approval, a State plan shall include the requirements for stack opacity at least as protective as § 60.52c(b) of subpart Ec of this part.

**§ 60.34e Operator training and qualification guidelines.**

For approval, a State plan shall include the requirements for operator training and qualification at least as protective as those requirements listed in § 60.53c of subpart Ec of this part. The State plan shall require compliance with these requirements according to the schedule specified in § 60.39e(e).

**§ 60.35e Waste management guidelines.**

For approval, a State plan shall include the requirements for a waste management plan at least as protective as those requirements listed in § 60.55c of subpart Ec of this part.

**§ 60.36e Inspection guidelines.**

(a) For approval, a State plan shall require that each small HMIWI subject to the emission limits under § 60.33e(b) undergo an initial equipment inspection that is at least as protective as the following within 1 year following approval of the State plan:

(1) At a minimum, an inspection shall include the following:

(i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;

(ii) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(iii) Inspect hinges and door latches, and lubricate as necessary;

(iv) Inspect dampers, fans, and blowers for proper operation;

(v) Inspect HMIWI door and door gaskets for proper sealing;

(vi) Inspect motors for proper operation;

(vii) Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;

(viii) Inspect incinerator shell for corrosion and/or hot spots;

(ix) Inspect secondary/tertiary chamber and stack, clean as necessary;

(x) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(xi) Visually inspect waste bed (grates), and repair/seal, as appropriate;

(xii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

(xiii) Inspect air pollution control device(s) for proper operation, if applicable;

(xiv) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(xv) Inspect bypass stack components;

(xvi) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

(xvii) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary repairs of the designated facility shall be completed.

(b) For approval, a State plan shall require that each small HMIWI subject to the emission limits under § 60.33e(b) undergo an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in paragraphs (a)(1) and (a)(2) of this section.

**§ 60.37e Compliance, performance testing, and monitoring guidelines.**

(a) Except as provided in paragraph (b) of this section, for approval, a State plan shall include the requirements for compliance and performance testing listed in § 60.56c of subpart Ec of this part, excluding the fugitive emissions testing requirements under § 60.56c(b)(12) and (c)(3).

(b) For approval, a State plan shall require any small HMIWI subject to the emission limits under § 60.33e(b) to

meet the following compliance and performance testing requirements:

(1) Conduct the performance testing requirements in § 60.56c(a), (b)(1) through (b)(9), (b)(11) (Hg only), and (c)(1) of subpart Ec of this part. The 2,000 lb/week limitation under § 60.33e(b) does not apply during performance tests.

(2) Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits.

(3) Following the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s).

(4) Except as provided in paragraph (b)(5) of this section, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(5) The owner or operator of a designated facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under paragraph (b)(4) of this section.

(c) For approval, a State plan shall include the requirements for monitoring listed in § 60.57c of subpart Ec of this part, except as provided for under paragraph (d) of this section.

(d) For approval, a State plan shall include requirements for any small HMIWI subject to the emission limits under § 60.33e(b) to meet the following monitoring requirements:

(1) Install, calibrate (to manufacturers' specifications), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.

(2) Install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating hours per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

**§ 60.38e Reporting and recordkeeping guidelines.**

(a) For approval, a State plan shall include the reporting and recordkeeping requirements listed in § 60.58c(b), (c), (d), (e), and (f) of subpart Ec of this part, excluding § 60.58c(b)(2)(ii) (fugitive emissions) and (b)(7) (siting).

(b) For approval, a State plan shall require the owner or operator of each small HMIWI subject to the emission limits under § 60.33e(b) to:

(1) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the State regulatory agency; and

(2) Submit an annual report containing information recorded under paragraph (b)(1) of this section no later than 60 days following the year in which data were collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

**§ 60.39e Compliance times.**

(a) Not later than September 15, 1998, each State in which a designated facility is operating shall submit to the Administrator a plan to implement and enforce the emission guidelines.

(b) Except as provided in paragraphs (c) and (d) of this section, State plans shall provide that designated facilities comply with all requirements of the State plan on or before the date 1 year after EPA approval of the State plan, regardless of whether a designated facility is identified in the State plan inventory required by § 60.25(a) of subpart B of this part.

(c) State plans that specify measurable and enforceable incremental steps of progress towards compliance for designated facilities planning to install the necessary air pollution control equipment may allow compliance on or before the date 3 years after EPA approval of the State plan (but not later than the September 16, 2002. Suggested measurable and enforceable activities to be included in State plans are:

(1) Date for submitting a petition for site specific operating parameters under § 60.56c(i) of subpart Ec of this part.

(2) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(3) Date for obtaining design drawings of the air pollution control device(s);

(4) Date for ordering the air pollution control device(s);

(5) Date for obtaining the major components of the air pollution control device(s);

(6) Date for initiation of site preparation for installation of the air pollution control device(s);

(7) Date for initiation of installation of the air pollution control device(s);

(8) Date for initial startup of the air pollution control device(s); and

(9) Date for initial compliance test(s) of the air pollution control device(s).

(d) State plans that include provisions allowing designated facilities to petition the State for extensions beyond the compliance times required in paragraph (b) of this section shall:

(1) Require that the designated facility requesting an extension submit the following information in time to allow the State adequate time to grant or deny the extension within 1 year after EPA approval of the State plan:

(i) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why up to 3 years after EPA approval of the State plan is sufficient time to comply with the State plan while 1 year after EPA approval of the State plan is not sufficient. The documentation shall also include an evaluation of the option to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

(ii) Documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the emission guidelines.

(2) Include procedures for granting or denying the extension; and

(3) If an extension is granted, require compliance with the emission

guidelines on or before the date 3 years after EPA approval of the State plan (but not later than September 16, 2002.

(e) For approval, a State plan shall require compliance with § 60.34e—Operator training and qualification guidelines and § 60.36e—Inspection guidelines by the date 1 year after EPA approval of a State plan.

(f) The Administrator shall develop, implement, and enforce a plan for existing HMIWI located in any State that has not submitted an approvable plan within date 2 years after September 15, 1997. Such plans shall ensure that each designated facility is in compliance with the provisions of this subpart no later than date 5 years after September 15, 1997.

TABLE 1 TO SUBPART CE.—EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

| Pollutant | Units (7 percent oxygen, dry basis) | Emission limits | | |
|---|---|---|---|---|
| | | HMIWI size | | |
| | | Small | Medium | Large |
| Particulate matter | Milligrams per dry standard cubic meter (grains per dry standard cubic foot). | 115 (0.05) | 69 (0.03) | 34 (0.015). |
| Carbon monoxide | Parts per million by volume | 40 | 40 | 40. |
| Dioxins/furans | Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet). | 125 (55) or 2.3 (1.0) | 125 (55) or 2.3 (1.0) | 125 (55) or 2.3 (1.0). |
| Hydrogen chloride | Parts per million by volume or percent reduction. | 100 or 93% | 100 or 93% | 100 or 93%. |
| Sulfur dioxide | Parts per million by volume | 55 | 55 | 55. |
| Nitrogen oxides | Parts per million by volume | 250 | 250 | 250. |
| Lead | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 1.2 (0.52) or 70% | 1.2 (0.52) or 70% | 1.2 (0.52) or 70%. |
| Cadmium | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 0.16 (0.07) or 65% | 0.16 (0.07) or 65% | |
| Mercury | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 0.55 (0.24) or 85% | 0.55 (0.24) or 85% | 0.55 (0.24) or 85%. |

TABLE 2 TO SUBPART CE.—EMISSIONS LIMITS FOR SMALL HMIWI WHICH MEET THE CRITERIA UNDER § 60.33E(B)

| Pollutant | Units (7 percent oxygen, dry basis) | HMIWI emission limits |
|---|---|---|
| Particulate matter | Milligrams per dry standard cubic meter (grains per dry standard cubic foot) | 197 (0.086). |
| Carbon monoxide | Parts per million by volume | 40. |
| Dioxins/furans | nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet). | 800 (350) or 15 (6.6). |
| Hydrogen chloride | Parts per million by volume | 3100. |
| Sulfur dioxide | Parts per million by volume | 55. |
| Nitrogen oxides | Parts per million by volume | 250. |
| Lead | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet). | 10 (4.4). |
| Cadmium | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet). | 4 (1.7). |
| Mercury | Milligrams per dry standard cubic meter (grains per thousands dry standard cubic feet). | 7.5 (3.3). |

5. Part 60 is amended by adding a new subpart Ec to read as follows:

**Subpart Ec—Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction Is Commenced After June 20, 1996**


60.50c Applicability and delegation of authority.
60.51c Definitions.
60.52c Emission limits.
60.53c Operator training and qualification requirements.
60.54c Siting requirements.
60.55c Waste management plan.
60.56c Compliance and performance testing.
60.57c Monitoring requirements.
60.58c Reporting and recordkeeping requirements.
Table 1 to Subpart Ec—Emission Limits for Small, Medium, and Large HMIWI
Table 2 to Subpart Ec—Toxic Equivalency Factors
Table 3 to Subpart Ec—Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies


## Subpart Ec—Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction Is Commenced After June 20, 1996

### § 60.50c Applicability and delegation of authority.

(a) Except as provided in paragraphs (b) through (h) of this section, the affected facility to which this subpart applies is each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction is

commenced after June 20, 1996 or for which modification is commenced after March 16, 1998.

(b) A combustor is not subject to this subpart during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in § 60.51c) is burned, provided the owner or operator of the combustor:

(1) Notifies the Administrator of an exemption claim; and

(2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactivewaste and/or chemotherapeutic waste is burned.

(c) Any co-fired combustor (defined in § 60.51c) is not subject to this subpart if the owner or operator of the co-fired combustor:

(1) Notifies the Administrator of an exemption claim;

(2) Provides an estimate of the relative amounts of hospital waste, medical/infectious waste, and other fuels and wastes to be combusted; and

(3) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(d) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(e) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of this part (standards or guidelines for certain municipal waste combustors) is not subject to this subpart.

(f) Any pyrolysis unit (defined in § 60.51c) is not subject to this subpart.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this subpart.

(h) Physical or operational changes made to an existing HMIWI solely for the purpose of complying with emission guidelines under subpart Ce are not considered a modification and do not result in an existing HMIWI becoming subject to this subpart.

(i) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, the following authorities shall be retained by the Administrator and not transferred to a State:

(1) The requirements of § 60.56c(i) establishing operating parameters when using controls other than those listed in § 60.56c(d).

(2) Alternative methods of demonstrating compliance under § 60.8.

(j) Affected facilities subject to this subpart are not subject to the requirements of 40 CFR part 64.

(k) The requirements of this subpart shall become effective March 16, 1998

(l) Beginning September 15, 2000, or on the effective date of an EPA-approved operating permit program under Clean Air Act title V and the implementing regulations under 40 CFR part 70 in the State in which the unit is located, whichever date is later, affected facilities subject to this subpart shall operate pursuant to a permit issued under the EPA approved State operating permit program.

**§ 60.51c Definitions.**

*Batch HMIWI* means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

*Biologicals* means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

*Blood Products* means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

*Body Fluids* means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

*Bypass stack* means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

*Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Co-fired combustor* means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

*Continuous emission monitoring system* or *CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

*Continuous HMIWI* means an HMIWI that is designed to allow waste charging and ash removal during combustion.

*Dioxins/furans* means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

*Fabric filter* or *baghouse* means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

*Facilities manager* means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

*High-air phase* means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

*Hospital* means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

*Hospital/medical/infectious waste incinerator* or *HMIWI* or *HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste.

*Hospital/medical/infectious waste incinerator operator* or *HMIWI operator* means any person who operates, controls or supervises the day-to-day operation of an HMIWI.

*Hospital waste* means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

*Infectious agent* means any organism (such as a virus or bacteria) that is

capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

*Intermittent HMIWI* means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

*Large HMIWI* means:

(1) Except as provided in (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.

(2) The following are not large HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is less than or equal to 4,000 pounds per day.

*Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

*Maximum charge rate* means:

(1) For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(2) For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

*Maximum design waste burning capacity* means:

(1) For intermittent and continuous HMIWI,

$C=P_V \times 15{,}000/8{,}500$

Where:

C=HMIWI capacity, lb/hr

$P_V$=primary chamber volume, $ft^3$

15,000=primary chamber heat release rate factor, $Btu/ft^3/hr$

8,500=standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$C=P_V \times 4.5/8$

Where:

C=HMIWI capacity, lb/hr

$P_V$=primary chamber volume, $ft^3$

4.5=waste density, $lb/ft^3$

8=typical hours of operation of a batch HMIWI, hours.

*Maximum fabric filter inlet temperature* means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

*Maximum flue gas temperature* means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

*Medical/infectious waste* means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in § 261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment mation; and domestic sewage materials identified in § 261.4(a)(1) of this chapter.

(1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also include in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

*Medium HMIWI* means:

(1) Except as provided in paragraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(2) The following are not medium HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

*Minimum dioxin/furan sorbent flow rate* means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

*Minimum Hg sorbent flow rate* means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

*Minimum hydrogen chloride (HCl) sorbent flow rate* means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

*Minimum horsepower or amperage* means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

*Minimum pressure drop across the wet scrubber* means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

*Minimum scrubber liquor flow rate* means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

*Minimum scrubber liquor pH* means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

*Minimum secondary chamber temperature* means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, or dioxin/furan emission limits.

*Modification* or *Modified HMIWI* means any change to an HMIWI unit after the effective date of these standards such that:

(1) The cumulative costs of the modifications, over the life of the unit, exceed 50 per centum of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or

(2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111.

*Operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

*Operation* means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

*Particulate matter* or *PM* means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Primary chamber* means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

*Pyrolysis* means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

*Secondary chamber* means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

*Small HMIWI* means:

(1) Except as provided in (2):

(i) An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

(2) The following are not small HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour;

(ii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

*Standard conditions* means a temperature of 20° C and a pressure of 101.3 kilopascals.

*Startup* means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

*Wet scrubber* means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

**§ 60.52c Emission limits.**

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain stack emissions in excess of the limits presented in Table 1 of this subpart.

(b) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the stack of that affected facility any gases that exhibit greater than 10 percent opacity (6-minute block average).

(c) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility utilizing a large HMIWI shall cause to be discharged into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as

determined by EPA Reference Method 22, except as provided in paragraphs (d) and (e) of this section.

(d) The emission limit specified in paragraph (c) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(e) The provisions specified in paragraph (c) of this section do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary maintenance and repairs of ash conveying systems shall be completed.

**§ 60.53c Operator training and qualification requirements.**

(a) No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(b) Operator training and qualification shall be obtained through a State-approved program or by completing the requirements included in paragraphs (c) through (g) of this section.

(c) Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

(1) 24 hours of training on the following subjects:

(i) Environmental concerns, including pathogen destruction and types of emissions;

(ii) Basic combustion principles, including products of combustion;

(iii) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(iv) Combustion controls and monitoring;

(v) Operation of air pollution control equipment and factors affecting performance (if applicable);

(vi) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);

(vii) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(viii) Actions to correct malfunctions or conditions that may lead to malfunction;

(ix) Bottom and fly ash characteristics and handling procedures;

(x) Applicable Federal, State, and local regulations;

(xi) Work safety procedures;

(xii) Pre-startup inspections; and

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Reference material distributed to the attendees covering the course topics.

(d) Qualification shall be obtained by:

(1) Completion of a training course that satisfies the criteria under paragraph (c) of this section; and

(2) Either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(e) Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

(f) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:

(1) Update of regulations;

(2) Incinerator operation, including startup and shutdown procedures;

(3) Inspection and maintenance;

(4) Responses to malfunctions or conditions that may lead to malfunction; and

(5) Discussion of operating problems encountered by attendees.

(g) A lapsed qualification shall be renewed by one of the following methods:

(1) For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph (f) of this section.

(2) For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (c) of this section.

(h) The owner or operator of an affected facility shall maintain documentation at the facility that address the following:

(1) Summary of the applicable standards under this subpart;

(2) Description of basic combustion theory applicable to an HMIWI;

(3) Procedures for receiving, handling, and charging waste;

(4) HMIWI startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring HMIWI emissions;

(9) Reporting and recordkeeping procedures; and

(10) Procedures for handling ash.

(i) The owner or operator of an affected facility shall establish a program for reviewing the information listed in paragraph (h) of this section annually with each HMIWI operator (defined in § 60.51c).

(1) The initial review of the information listed in paragraph (h) of this section shall be conducted within 6 months after the effective date of this subpart or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

(2) Subsequent reviews of the information listed in paragraph (h) of this section shall be conducted annually.

(j) The information listed in paragraph (h) of this section shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the EPA or its delegated enforcement agent upon request.

**§ 60.54c Siting requirements.**

(a) The owner or operator of an affected facility for which construction is commenced after September 15, 1997 shall prepare an analysis of the impacts of the affected facility. The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, the analysis may consider costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of facility impacts prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, as long as they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) The owner or operator of the affected facility shall complete and submit the siting requirements of this section as required under § 60.58c(a)(1)(iii).

**§ 60.55c Waste management plan.**

The owner or operator of an affected facility shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities" (incorporated by reference, see § 60.17) shall be considered in the development of the waste management plan.

**§ 60.56c Compliance and performance testing.**

(a) The emission limits under this subpart apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8 to determine compliance with the emission limits using the procedures and test methods listed in paragraphs (b)(1) through (b)(12) of this section. The use of the bypass stack during a performance test shall invalidate the performance test.

(1) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(2) The minimum sample time shall be 1 hour per test run unless otherwise indicated.

(3) EPA Reference Method 1 of appendix A of this part shall be used to select the sampling location and number of traverse points.

(4) EPA Reference Method 3 or 3A of appendix A of this part shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A of appendix A of this part shall be used simultaneously with each reference method.

(5) The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$C_{adj}=C_{meas}\ (20.9-7)/(20.9-\%O_2)$ where:

$C_{adj}$=pollutant concentration adjusted to 7 percent oxygen;

$C_{meas}$=pollutant concentration measured on a dry basis (20.9—7)=20.9 percent oxygen—7 percent oxygen (defined oxygen correction basis);

20.9=oxygen concentration in air, percent; and

$\%O_2$=oxygen concentration measured on a dry basis, percent.

(6) EPA Reference Method 5 or 29 of appendix A of this part shall be used to measure the particulate matter emissions.

(7) EPA Reference Method 9 of appendix A of this part shall be used to measure stack opacity.

(8) EPA Reference Method 10 or 10B of appendix A of this part shall be used to measure the CO emissions.

(9) EPA Reference Method 23 of appendix A of this part shall be used to measure total dioxin/furan emissions. The minimum sample time shall be 4 hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans, under § 60.52c, the following procedures shall be used to determine compliance:

(i) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23.

(ii) For each dioxin/furan congener measured in accordance with paragraph (b)(9)(i) of this section, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 2 of this subpart.

(iii) Sum the products calculated in accordance with paragraph (b)(9)(ii) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(10) EPA Reference Method 26 of appendix A of this part shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under § 60.52c, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

$$(\%R_{HCl})=\left(\frac{E_i-E_o}{E_i}\right)\times 100$$

Where:

$\%R_{HCl}$=percentage reduction of HCl emissions achieved;

$E_i$=HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

$E_o$=HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(11) EPA Reference Method 29 of appendix A of this part shall be used to measure Pb, Cd, and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under § 60.52c, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal})=\left(\frac{E_i-E_o}{E_i}\right)\times 100$$

Where:

$\%R_{metal}$=percentage reduction of metal emission (Pb, Cd, or Hg) achieved;

$E_i$=metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

$E_o$=metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(12) The EPA Reference Method 22 of appendix A of this part shall be used to determine compliance with the fugitive ash emission limit under § 60.52c(c). The minimum observation time shall be a series of three 1-hour observations.

(c) Following the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility shall:

(1) Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (b) of this section.

(2) Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (b) of this section. If all three performance tests over a 3-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted

every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

(3) For large HMIWI, determine compliance with the visible emission limits for fugitive emissions from flyash/bottom ash storage and handling by conducting a performance test using EPA Reference Method 22 on an annual basis (no more than 12 months following the previous performance test).

(4) Facilities using a CEMS to demonstrate compliance with any of the emission limits under § 60.52c shall:

(i) Determine compliance with the appropriate emission limit(s) using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction).

(ii) Operate all CEMS in accordance with the applicable procedures under appendices B and F of this part.

(d) The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall:

(1) Establish the appropriate maximum and minimum operating parameters, indicated in Table 3 of this subpart for each control system, as site specific operating parameters during the initial performance test to determine compliance with the emission limits; and

(2) Following the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 3 of this subpart and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

(e) Except as provided in paragraph (h) of this section, for affected facilities equipped with a dry scrubber followed by a fabric filter:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(f) Except as provided in paragraph (h) of this section, for affected facilities equipped with a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limit.

(2) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(3) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(5) Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(6) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(g) Except as provided in paragraph (h) of this section, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(h) The owner or operator of an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraph (e), (f), or (g) of this section.

(i) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet

scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under § 60.52c shall petition the Administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the Administrator.

(j) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Administrator may request a repeat performance test at any time.

**§ 60.57c Monitoring requirements.**

(a) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 3 of this subpart such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 3 of this subpart at all times except during periods of startup and shutdown.

(b) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

(c) The owner or operator of an affected facility using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under § 60.52c shall install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to § 60.56c(i).

(d) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

**§ 60.58c Reporting and recordkeeping requirements.**

(a) The owner or operator of an affected facility shall submit notifications, as provided by § 60.7. In addition, the owner or operator shall submit the following information:

(1) Prior to commencement of construction;

(i) A statement of intent to construct;

(ii) The anticipated date of commencement of construction; and

(iii) All documentation produced as a result of the siting requirements of § 60.54c.

(2) Prior to initial startup;

(i) The type(s) of waste to be combusted;

(ii) The maximum design waste burning capacity;

(iii) The anticipated maximum charge rate; and

(iv) If applicable, the petition for site-specific operating parameters under § 60.56c(i).

(b) The owner or operator of an affected facility shall maintain the following information (as applicable) for a period of at least 5 years:

(1) Calendar date of each record;

(2) Records of the following data:

(i) Concentrations of any pollutant listed in § 60.52c or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

(ii) Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

(iii) HMIWI charge dates, times, and weights and hourly charge rates;

(iv) Fabric filter inlet temperatures during each minute of operation, as applicable;

(v) Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

(vi) Amount and type of Hg sorbent used during each hour of operation, as applicable;

(vii) Amount and type of HCl sorbent used during each hour of operation, as applicable;

(viii) Secondary chamber temperatures recorded during each minute of operation;

(ix) Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

(x) Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

(xi) Pressure drop across the wet scrubber system during each minute of operation, as applicable,

(xii) Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

(xiii) pH at the inlet to the wet scrubber during each minute of operation, as applicable,

(xiv) Records indicating use of the bypass stack, including dates, times, and durations, and

(xv) For affected facilities complying with §§ 60.56c(i) and 60.57c(c), the owner or operator shall maintain all operating parameter data collected.

(3) Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (b)(2) of this section have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

(4) Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.

(5) Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (b)(2) of this section exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.

(6) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating parameters, as applicable.

(7) All documentation produced as a result of the siting requirements of § 60.54c;

(8) Records showing the names of HMIWI operators who have completed review of the information in § 60.53c(h) as required by § 60.53c(i), including the date of the initial review and all subsequent annual reviews;

(9) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

(10) Records showing the names of the HMIWI operators who have met the criteria for qualification under § 60.53c and the dates of their qualification; and

(11) Records of calibration of any monitoring devices as required under § 60.57c(a), (b), and (c).

(c) The owner or operator of an affected facility shall submit the information specified in paragraphs (c)(1) through (c)(3) of this section no later than 60 days following the initial performance test. All reports shall be signed by the facilities manager.

(1) The initial performance test data as recorded under § 60.56c(b)(1) through (b)(12), as applicable.

(2) The values for the site-specific operating parameters established pursuant to § 60.56c(d) or (i), as applicable.

(3) The waste management plan as specified in § 60.55c.

(d) An annual report shall be submitted 1 year following the submission of the information in paragraph (c) of this section and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in paragraphs (d)(1) through (d)(8) of this section. All reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant to § 60.56c(d) or (i), as applicable.

(2) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to § 60.56c(d) or (i), as applicable.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to § 60.56c(d) or (i) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(4) Any information recorded under paragraphs (b)(3) through (b)(5) of this section for the calendar year being reported.

(5) Any information recorded under paragraphs (b)(3) through (b)(5) of this section for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(6) If a performance test was conducted during the reporting period, the results of that test.

(7) If no exceedances or malfunctions were reported under paragraphs (b)(3) through (b)(5) of this section for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

(8) Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(e) The owner or operator of an affected facility shall submit semiannual reports containing any information recorded under paragraphs (b)(3) through (b)(5) of this section no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information in paragraph (c) of this section. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager.

(f) All records specified under paragraph (b) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

TABLE 1 TO SUBPART EC.—EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

| Pollutant | Units (7 percent oxygen, dry basis) | Emission limits | | |
|---|---|---|---|---|
| | | HMIWI size | | |
| | | Small | Medium | Large |
| Particulate matter | Milligrams per dry standard cubic meter (grains per dry standard cubic foot). | 69 (0.03) | 34 (0.015) | 34 (0.015). |
| Carbon monoxide | Parts per million by volume | 40 | 40 | 40. |
| Dioxins/furans | Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter total dioxins/furans TEQ (grains per billion dry standard cubic feet). | 125 (55) or 2.3 (1.0) | 25 (11) or 0.6 (0.26) | 25 (11) or 0.6 (0.26). |
| Hydrogen chloride | Parts per million or percent reduction | 15 or 99% | 15 or 99% | 15 or 99%. |
| Sulfur dioxide | Parts per million by volume | 55 | 55 | 55. |
| Nitrogen oxides | Parts per million by volume | 250 | 250 | 250. |
| Lead | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 1.2 (0.52) or 70% | 0.07 (0.03) or 98% | 0.07 (0.03) or 98%. |
| Cadmium | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 0.16 (0.07) or 65% | 0.04 (0.02) or 90% | 0.04 (0.02) or 90%. |
| Mercury | Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction. | 0.55 (0.24) or 85% | 0.55 (0.24) or 85% | 0.55 (0.24) or 85%. |

TABLE 2 TO SUPBART EC.—TOXIC EQUIVALENCY FACTORS

| Dioxin/furan congener | Toxic equivalency factor |
|---|---|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |

TABLE 2 TO SUPBART EC.—TOXIC EQUIVALENCY FACTORS—Continued

| Dioxin/furan congener | Toxic equivalency factor |
|---|---|
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| Octachlorinated dibenzofuran | 0.001 |

TABLE 3 TO SUBPART EC.—OPERATING PARAMETERS TO BE MONITORED AND MINIMUM MEASUREMENT AND RECORDING FREQUENCIES

| Operating parameters to be monitored | Minimum frequency | | Control system | | |
|---|---|---|---|---|---|
| | Data measurement | Data recording | Dry scrubber followed by fabric filter | Wet scrubber | Dry scrubber followed by fabric filter and wet scrubber |
| Maximum operating parameters: | | | | | |
| Maximum charge rate | Continuous | 1xhour | ✓ | ✓ | ✓ |
| Maximum fabric filter inlet temperature | Continuous | 1xminute | ✓ | | ✓ |
| Maximum flue gas temperature | Continuous | 1xminute | ✓ | ✓ | |
| Minimum operating parameters: | | | | | |
| Minimum secondary chamber temperature | Continuous | 1xminute | ✓ | ✓ | ✓ |
| Minimum dioxin/furan sorbent flow rate | Hourly | 1xhour | ✓ | | ✓ |
| Minimum HCl sorbent flow rate | Hourly | 1xhour | ✓ | | ✓ |
| Minimum mercury (Hg) sorbent flow rate | Hourly | 1xhour | ✓ | | ✓ |
| Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber. | Continuous | 1xminute | | ✓ | ✓ |
| Minimum scrubber liquor flow rate | Continuous | 1xminute | | ✓ | ✓ |
| Minimum scrubber liquor pH | Continuous | 1xminute | | ✓ | ✓ |

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Part VII

# Environmental Protection Agency

40 CFR Part 60

Emission Guidelines for Existing Sources and Standards of Performance for New Stationary Sources: Large Municipal Waste Combustion Units; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[AD–FRL–5879–4]**

**RIN 2016–AD04**

## Emission Guidelines for Existing Sources and Standards of Performance for New Stationary Sources: Large Municipal Waste Combustion Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule.

**SUMMARY:** This action amends the emission guidelines (subpart Cb) and the standards of performance (subpart Eb) for municipal waste combustion (MWC) units. These amendments are companion amendments to the court-ordered remand amendments published elsewhere in this **Federal Register**. These amendments are being made to improve the clarity of subparts Cb and Eb, and to make technical corrections that have been brought to EPA's attention since the December 19, 1995 promulgation.

**DATES:** These amendments to the guidelines (subpart Cb) and standards (subpart Eb) are effective October 24, 1997 unless significant material adverse comments are received by September 24, 1997. If significant material adverse comments are received on the amendments to either the guidelines or the standards, the direct final rule receiving comment will be withdrawn. In addition, the effective date for amendments for §§ 60.17, 60.23, 60.24, 60.30, and subpart Ca in a final rule published on December 19, 1995 at 60 FR 65387 is established as December 19, 1995.

**FOR FURTHER INFORMATION CONTACT:** Mr. Walter Stevenson at (919) 541–5264, Combustion Group, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

**SUPPLEMENTARY INFORMATION:** A companion proposal to this direct final rule is being published in today's **Federal Register** and is identical to this direct final rule. Any comments on the amendments should address that proposal. If significant material adverse comments are received on the proposed amendments by the date specified in the proposed amendments, this direct final rule will be withdrawn and the comments on the proposed amendments will be addressed by EPA in a subsequent final rule. If no significant material adverse comments are received on any provision of the companion proposal, then no further action will be taken on the proposal and these amendments will become effective October 24, 1997.

Also being published in today's **Federal Register** are a separate direct final rule and proposal amending the guidelines and standards in response to specific court-mandated changes, consistent with the decision of the U.S. Court of Appeals in *Davis County Solid Waste Management and Recovery District* v. *EPA*, 101 F.3d 1395 (D.C. Cir. 1996), *as amended*, 108 F.3d 1454 (D.C. Cir. 1997), and the court's vacatur order issued on April 8, 1997. Refer to the separate court-related direct final rule for more background information regarding the history of these subparts and the court opinion.

The amendments contained herein provide additional clarification to the language of the subparts beyond the clarifications included in the separate court-related amendments. In addition, these amendments include corrections to cross-references and typographical errors in the December 19, 1995 promulgation, and make technical corrections that have been brought to EPA's attention since 1995.

### I. Summary of Amendments

The amendments in this direct final rule are primarily to improve the readability of the guidelines and standards reflecting revisions related to the court's opinion. These modifications include overall changes to the language used, changes to the definition section, the inclusion of Method 3A in the performance testing options, the addition of a refuse-derived fuel heating value, clarification of the fugitive ash annual testing requirements, and other miscellaneous amendments.

*A. Clarification of Language*

To reflect the change in applicability from a plant basis to unit basis as a result of the *Davis* decision and subsequent vacatur order, references to small and large plants are removed throughout the rules. In some cases, this change entails removing and reserving entire paragraphs if the entire paragraph addressed small plants.

The lower size cut-off has been revised from 35 megagrams per day plant capacity to 250 tons per day unit capacity. In addition, all capacity designations have been changed to "tons per day" instead of "megagrams per day" to be consistent with the 250 tons per day lower size cut-off specified by the court for large MWC units.

*B. Definitions*

Several definitions are no longer needed and have been removed, including the definitions of municipal waste combustor plant capacity, large municipal waste combustor plant, and small municipal waste combustor plant. These changes are included in § 60.51b.

*C. Performance Test Methods*

It was intended that EPA Test Methods 3, 3A, or 3B, as applicable, be specified for use in measuring diluent gas during performance testing or with continuous monitoring systems. The 1995 rule only listed Method 3 for some pollutants and listed Methods 3A or 3B for other pollutants. This change is included in § 60.58b.

*D. Refuse-Derived Fuel Heating Value*

To correct an oversight in the 1995 rules, a separate heating value for combustors firing refuse-derived fuel (RDF) has been added to take into consideration the greater specific heat of RDF. The heating value promulgated in 1995 remains the same for non-RDF.

*E. Fugitive Ash Annual Test Requirements*

To clarify that fugitive emissions from ash handling must be tested on an annual basis, a new paragraph has been added to § 60.58b, and cross references have been corrected, consistent with EPA's intent that testing be done annually (see 60 FR 65394 and 65400).

*F. Miscellaneous Changes*

The remaining changes have been made to correct typographical errors, to clarify, and to improve readability.

### II. Judicial Review

Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by these amendments only is available on the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this action. Under section 307(b)(2) of the Clean Air Act, the requirements that are subject to today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Under section 307(d)(7) of the Clean Air Act, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment or public hearing may be raised during judicial review. Public comments on the notice proposing these amendments must be submitted to docket A–90–45/Section VIII–E (see **DATES, ADDRESSES,** and **SUPPLEMENTARY INFORMATION** of

the proposal notice published elsewhere in today's **Federal Register** for more details). As discussed under the SUPPLEMENTARY INFORMATION section of this direct final promulgation notice and the proposal notice, if significant material adverse comments are received on the companion proposal, this direct final rule will be withdrawn and the comments received on the proposal will be addressed in a separate rulemaking.

## III. Administrative Requirements

### *A. Docket*

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The principal purposes of the docket are: (1) to allow interested parties to identify and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review, except for interagency review material. The docket number for this rulemaking is A–90–45. Docket No. A–89–08 also includes background information for this rulemaking and supported the proposal and promulgation of the subpart Ca guidelines and subpart Ea standards. Docket No. A–89–08 has been incorporated by reference. Refer to the companion proposal in this **Federal Register** for docket address information.

### *B. Paperwork Reduction Act*

Today's action does not impose any new information collection burden. The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in these regulations under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060–0210 (EPA ICR 1506.07). Copies of the ICR document(s) may be obtained from Sandy Farmer, OPPE Regulatory Information Division; EPA; 401 M St., SW. (mail code 2137); Washington, DC 20460 or by calling (202) 260–2740. Include the ICR and/or OMB number in any correspondence.

### *C. Executive Order 12866*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to OMB review and the requirements of the Executive Order. The EPA considered the 1995 guidelines and standards to be significant and the rules were reviewed by OMB in 1995 (see 60 FR 65405). The amendments issued today do not result in any additional control requirements and this regulatory action is considered "not significant" under Executive Order 12866.

### *D. Unfunded Mandates Act*

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a statement to accompany any rule where the estimated costs to State, local, or tribal governments, or to the private sector will be $100 million or more in any 1 year. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly impacted by the rule. An unfunded mandates statement was prepared and published in the 1995 promulgation notice (see 60 FR 65405 to 65412).

The EPA has determined that these amendments do not include any new Federal mandates. Therefore, the requirements of the Unfunded Mandates Act do not apply to this direct final rule.

### *E. Regulatory Flexibility Act*

Section 605 of the RFA requires Federal agencies to give special consideration to the impacts of regulations on small entities, which are small businesses, small organizations, and small governments. During the 1995 rulemaking, EPA estimated that few, if any, small entities would be affected by the promulgated guidelines and standards and, therefore, a regulatory flexibility analysis was not required (see 60 FR 65413). The rules as amended today would not establish any new requirements; therefore, pursuant to the provisions of 5 U.S.C. 605(b), EPA certifies that the amendments to the guidelines and standards will not have a significant impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

### *F. Submission to Congress and the Comptroller General*

Under 5 U.S.C. § 801(a)(1)(A), as added by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, EPA submitted a report containing these amendments and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of these rules in today's **Federal Register.** These amendments are not a "major rule" as defined by 5 U.S.C. 804(2) and a SBREFA analysis is not required.

## IV. Other Information

In addition to the amendment of subparts Cb and Eb, this **Federal Register** document addresses an omission in the 1995 promulgation notice. On December 19, 1995 at 60 FR 65387 EPA published a final rule which inadvertently left out an effective date for amendments 2., 3., 4., 5., and 5a. for sections 60.17, 60.23, 60.24, 60.30, and subpart Ca. Consistent with EPA's intent that those amendments be effective immediately (see 60 FR 65387, 65390, and 65414), the effective date was December 19, 1995.

### List of Subjects in 40 CFR Part 60

Environmental protection, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 15, 1997.

**Carol M. Browner,**

*Administrator.*

For reasons set out in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401, 7411, 7414, 7416, 7429, and 7601.

**§ 60.31 [Amended]**

2. Amend § 60.31b to remove the definition for "Municipal waste combustor plant capacity".

**§ 60.32 [Amended]**

3. In § 60.32b paragraphs (b)(1), (d), (e), (f)(1), and (i)(1) remove the word "Administrator" and add, in its place, the words "EPA Administrator".

**§ 60.33 [Amended]**

4. In § 60.33b(a)(3) remove the phrase "(an 85-percent reduction by weight)" and add in its place the phrase "(85-percent reduction by weight)";

**§ 60.34 [Amended]**

5. In § 60.34b amend table 3, referenced in paragraph (a), to add the superscript "[b]" to the end of the heading of the third column, and add the footnote "[b] Averaging times are 4-hour or 24-hour block averages.".

**§ 60.39 [Amended]**

6. In § 60.39b(c)(4)(iii)(B) remove the phrase "The owner or operator may request that the Administrator" and add, in its place, the phrase "The owner or operator of a designated facility may request that the EPA Administrator".

**§ 60.50 [Amended]**

7. Amend § 60.50b as follows:

a. In paragraphs (b)(1), (e), (f), (g)(1), and (j)(1) remove the word

"Administrator" and add, in its place, the words "EPA Administrator"; and

b. In paragraph (j) introductory text remove the phrase "located at a plant".

**§ 60.51 [Amended]**

8. Amend § 60.51b as follows:

a. Remove the definitions of "Large municipal waste combustor plant", "Municipal waste combustor plant capacity", and "Small municipal waste combustor plant";

b. In the definition of "Municipal waste combustor unit capacity" remove the word "megagrams" and add, in its place, the word "tons"; and

c. Correct the definition title *Refuse-derived/fuel* to read *Refuse-derived fuel.*

**§ 60.52 [Amended]**

9. Amend § 60.52b as follows:

a. In paragraphs (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), (b)(1), (b)(2), and (c)(2) remove the phrase "located within a small or large municipal waste combustor plant"; and

b. In paragraphs (d)(1) and (d)(2) remove the phrase "located within a large municipal waste combustor plant".

**§ 60.53 [Amended]**

10. Amend § 60.53b as follows:

a. In paragraphs (a) introductory text, (b) introductory text, and (c) introductory text remove the phrase "located within a small or large municipal waste combustor plant"; and

b. In table 1, referenced in paragraph (a) introductory text, add the superscript "[b]" to the end of the heading of the third column, and add the footnote "[b] Averaging times are 4-hour or 24-hour block averages.".

**§ 60.54 [Amended]**

11. Amend § 60.54b as follows:

a. In paragraphs (a), (b), (c) introductory text, (d), (e) introductory text, and (f) introductory text remove the phrase "located within a small or large municipal waste combustor plant"; and

b. Redesignate paragraphs (c)(i) and (c)(ii) as (c)(1) and (c)(2), respectively.

**§ 60.55 [Amended]**

12. In § 60.55b(a) remove the phrase "located within a small or large municipal waste combustor plant".

**§ 60.56 [Amended]**

13. In § 60.56b remove the phrase "located at a plant with a plant capacity to combust greater than 35 megagrams" and add, in its place, the phrase "with the capacity to combust greater than 250 tons".

**§ 60.57 [Amended]**

14. In § 60.57b (a) introductory text, (b) introductory text, and (c) remove the phrase "located within a small or large municipal waste combustor plant,".

**§ 60.58 [Amended]**

15. Amend § 60.58b as follows:

a. In paragraph (b) introductory text remove the phrase "operator of a small or large municipal waste combustor plant shall" and add, in its place, the phrase "operator of an affected facility shall";

b. In paragraph (b)(3) remove the phrase "startup of the municipal waste combustor" and add, in its place, the phrase "startup of the affected facility";

c. In paragraph (b)(6)(i) remove the words "The emission rate correction factor and the integrated bag sampling and analysis procedure of EPA Reference Method 3B shall" and add, in their place, the words "The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, as applicable, shall";

d. In paragraphs (c)(2), (d)(1)(ii), (d)(2)(ii), and (g)(2) remove the words "Method 3" and add, in their place, the words "Method 3, 3A, or 3B, as applicable,";

e. In paragraphs (c)(4), (d)(1)(v), (d)(2)(vii), (e)(3), (f)(4), (g)(8), (h)(2), (i)(5) remove the phrase "An owner or operator may request" and add, in its place, the phrase "The owner or operator of an affected facility may request";

f. In paragraphs (c)(7), (c)(11), and (d)(2)(viii) remove the phrase "located within a small or large municipal waste combustor plant";

g. In paragraphs (c)(9), (d)(1)(vii), (d)(2)(ix), (f)(7), (h)(3), and (h)(4) remove the phrase "located within a large municipal waste combustor plant";

h. Remove and reserve paragraphs (c)(10), (d)(1)(viii), (d)(1)(ix), (d)(2)(x), (f)(8), and (g)(5)(ii);

i. In paragraphs (e)(12)(i)(B), (h)(10)(i)(B), and (i)(3)(ii)(B) remove the words "Method 3A or 3B" and add, in their place, the words "Method 3, 3A, or 3B, as applicable";

j. In paragraphs (g)(5) introductory text and (g)(5)(i) remove the phrase "located within small and large municipal waste combustor plants";

k. In paragraphs (h)(10) introductory text and (m)(3) introductory text remove the phrase "The owner or operator shall" and add, in its place, the phrase "The owner or operator of an affected facility shall";

l. In paragraphs (j)(1) introductory text and (j)(2) remove the phrase ", in megagrams per day of municipal solid waste combusted," and in paragraph (j)(2) remove the phrase "in megagrams per day of municipal solid waste";

m. In paragraph (j)(1)(i) remove the words "10,500 kilojoules per kilogram" and add, in their place, the words "12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel";

n. In paragraph (j)(2) remove the words "10,500 kilojoules per kilogram for all municipal solid waste" and add, in their place, the words "12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel"; and

o. Revise paragraph (b)(7), the first sentence of paragraph (g)(5)(iii), paragraph (h) introductory text, paragraph (k) introductory text, and add paragraph (k)(4) to read as follows:

**§ 60.58b Compliance and performance testing.**

* * * * *

(b) * * *

(7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to the EPA Administrator as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.

* * * * *

(g) * * *

(5) * * *

(iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant.

* * *

* * * * *

(h) The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under § 60.52b(d).

* * * * *

(k) The procedures specified in paragraphs (k)(1) through (k)(4) of this

section shall be used for determining compliance with the fugitive ash emission limit under § 60.55b.

* * * * *

(4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).

* * * * *

**§ 60.59 [Amended]**

16. Amend § 60.59b as follows:

a. In paragraph (b)(4) remove the phrase ", municipal waste combustion plant capacity,";

b. In paragraph (d) introductory text remove the phrase "located within a small or large municipal waste combustor plant and";

c. In paragraphs (d)(2)(i)(C), (d)(2)(ii)(B), and (d)(6)(ii) remove the phrase "(large municipal waste combustor plants only)";

d. In paragraph (d)(3) remove the phrase "(d)(2)(ii)(A) through (d)(2)(ii)(E)" and add, in its place the phrase "(d)(2)(ii)(A) through (d)(2)(ii)(D)";

e. In paragraph (d)(8) remove the phrase "(large municipal waste combustors only)";

f. In paragraph (d)(11) remove "municipal waste combustor" and add, in its place, "affected facility";

g. In paragraph (d)(12)(ii) remove the phrase "as required by § 60.54b(a)" and add, in its place, the phrase "as required by § 60.54b(b)";

h. In paragraphs (f) introductory text, (g) introductory text, and (h) introductory text remove the phrase "located within a small or large municipal waste combustor plant";

i. In paragraph (l) remove the phrase "If an owner or operator would prefer to select" and add, in its place, "If the owner or operator of an affected facility would prefer";

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supervisor of an affected faciltiy located within a large MWC plant shall obtain and keep current either a provisional or operator certification in accordance with ASME QRO–1–1994 (incorporated by reference, see § 60.17) or an equivalent State-approved certification program.

* * * * *

(f) * * *

(9) [Reserved]

* * * * *

7. Section 60.58a is amended by revising paragraphs (h)(1), (h)(2), (h)(6)(i), (h)(6)(ii), and (h)(10), redesignating paragraph (h)(6)(iii) as paragraph (h)(6)(v), adding new paragraphs (h)(6)(iii) and (h)(6)(iv), removing and reserving paragraph (j)(3), and revising paragraph (j)(4), to read as follows:

**§ 60.58a Compliance and performance testing.**

* * * * *

(h) * * *

(1) Compliance with the carbon monoxide emission limits in § 60.56a(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall MWC's, RDF stokers, and spreader stoker/RDF mixed fuel-fired combustors.

(2) For affected mass burn rotary waterwall MWC's, RDF stokers, and spreader stoker/RDF mixed fuel-fired combustors, compliance with the carbon monoxide emission limits in § 60.56a(a) shall be determined using a 24-hour daily arithmetic average.

* * * * *

(6) * * *

(i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam or feedwater flow in kilograms per hour (pounds per hour) on a continuous basis; and record the output of the monitor. Steam or feedwater flow shall be calculated in 4-hour block arithmetic averages.

(ii) The method included in "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964", Section 4 (incorporated by reference, see § 60.17) shall be used for calculating the steam (or feedwater flow) required under paragraph (h)(6)(i) of this section. The recommendations of "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference, see § 60.17) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (h)(6)(iii) of this section.

(iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan compliance and performance test, and at least once per year.

* * * * *

(10) At a minimum, valid CEMS data for carbon monoxide, steam or feedwater flow, and particulate matter control device inlet temperature shall be obtained 75 percent of the hours per day for 75 percent of the days per month the affected facility is operated and combusting MSW.

* * * * *

(j) * * *

(3) [Reserved]

(4) The MWC unit capacity shall be calculated using a design heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound) for all MSW.

* * * * *

**§ 60.59a [Amended]**

8. Section 60.59a is amended by removing paragraphs (a)(1), (b)(14), (b)(15), and (m), and removing the third sentence of paragraph (e).

[FR Doc. 95–30254 Filed 12–18–95; 8:45 am]

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**40 CFR Part 60**

**[AD-FRL–5327–5]**

**RIN 2060–AD00**

## Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources

## Municipal Waste Combustors

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This action adds standards of performance for new municipal waste combustor (MWC) units and emission guidelines for existing MWC's. The standards and guidelines implement sections 111 and 129 of the Clean Air Act and are based on the Administrator's determination that MWC's cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare. The standards and guidelines apply to MWC units at plants with aggregate capacities to combust greater than 35 megagrams per day (Mg/day) (approximately 40 tons per day) of municipal solid waste (MSW) and require sources to achieve emission levels reflecting the maximum degree of reduction in emissions of air pollutants that the Administrator determined is achievable, taking into consideration the cost of achieving such emission reduction, and any non-air-quality health and environmental impacts and energy requirements. The promulgated standards and guidelines establish emission levels for MWC organics (dioxins/furans), MWC metals (cadmium (Cd), lead (Pb), mercury (Hg), particulate matter (PM), and opacity), MWC acid gases (hydrogen chloride (HCl) and sulfur dioxide ($SO_2$)), nitrogen oxides ($NO_X$), and MWC fugitive ash emissions. Some of the pollutants being regulated are considered to be carcinogens and at sufficient concentrations can cause toxic effects following exposure. The standards and guidelines also establish requirements for MWC operating practices (carbon monoxide (CO), load, flue gas temperature at the PM control device inlet, and operator training/certification). Additionally, the standards for new MWC plants also require a siting analysis and materials separation plan.

**DATES:** *Effective Dates.* June 19, 1996 for the standards for new sources (§§ 60.50b through 60.59b) and December 19, 1995 for the emission guidelines for existing sources (§§ 60.30b through 60.39b). The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 19, 1996 for the standards for new sources. See table 3 of this preamble for a summary of the retrofit schedules for existing MWC sources. See **SUPPLEMENTARY INFORMATION** for a discussion of the schedule for judicial review.

*Comments.* Comments on the Information Collection Request (ICR) document associated with the final standards for new sources are requested, as discussed in section VI.B of this preamble. Comments on the ICR document must be received on or before February 20, 1996. Refer to Section VI.B for further information on this request for comment.

**ADDRESSES:** *Comments.* As noted above, comments on the ICR document

associated with the final standards for new source are requested. See section VI.B and the **SUPPLEMENTARY INFORMATION** section of this preamble for further information on obtaining a copy of the ICR document and addresses for submitting comments on the ICR document.

*Background Information.* The principal background information for the final standards and guidelines includes: (1) A background information document (BID) entitled, "Municipal Waste Combustion: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses" (EPA–453/R–95–0136), which contains a summary of all the significant public comments submitted regarding the proposed standards and guidelines, the EPA's response to these comments, and a summary of the changes made to the standards and guidelines as a result of the comments; and (2) several technical documents listed under **SUPPLEMENTARY INFORMATION,** including all of the background information documents that supported the proposal and promulgation of the subpart Ea standards and subpart Ca guidelines. A document entitled "FACT SHEET: New Municipal Waste Combustors—Subpart Eb Standards," which succinctly summarizes the final standards, and a document entitled "FACT SHEET: Existing Municipal Waste Combustors—Subpart Cb Emission Guidelines," which succinctly summarizes the guidelines, are also available. See **SUPPLEMENTARY INFORMATION** for instructions and addresses for obtaining these documents.

*Docket.* Docket Nos. A–90–45 and A–89–08, containing supporting information used in developing the standards and guidelines, are available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday except for Federal holidays at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (Mail Code 6102), 401 M Street SW, Washington DC 20460 [phone: (202) 260–7548]. The docket is located at the above address in room M–1500, Waterside Mall (ground floor, central mall). A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Mr. Walter Stevenson at (919) 541–5264 or Mr. Fred Porter at (919) 541–5251, Combustion Group, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

**SUPPLEMENTARY INFORMATION:**

Background Information.

On December 20, 1989, the EPA proposed standards and guidelines for MWC's in subparts Ea and Ca of 40 CFR 60, respectively. The subparts Ea and Ca were promulgated on February 11, 1991 and were developed under authority of paragraph (b) of section 111 of the Clean Air Act of 1977. The 1990 Amendments to the Clean Air Act required the EPA to review these emission standards and guidelines and determine if they were fully consistent with the requirements of section 129. The EPA reviewed the subpart Ea standards and subpart Ca guidelines and concluded that they were not fully consistent with the requirements of section 129. Therefore, the EPA proposed to revise the standards and guidelines in a September 20, 1994 proposal to make the standards and guidelines fully consistent with the requirements of section 129. Municipal waste combustors that begin construction after September 20, 1994 or that begin modification or reconstruction after June 19, 1996 and that meet all other applicability criteria are subject to the revised standards (subpart Eb). Municipal waste combustors that were constructed on or before September 20, 1994 and that meet all other applicability criteria are subject to the revised guidelines (subpart Cb). Municipal waste combustors that were constructed after December 20, 1989 and on or before September 20, 1994 and that meet all other applicability criteria are subject to both the subpart Ea standards (1991 standards for new sources) and the subpart Cb guidelines (1995 retrofit guidelines for existing sources). In this final rule, the EPA is withdrawing the subpart Ca guidelines (1991 guidelines for existing sources). In a separate action in today's Federal Register the EPA is publishing a direct final rule amending the text of subpart Ea.

This Federal Register final rule discusses: (1) The standards for new MWC's, (2) the guidelines for existing MWC's, (3) the withdrawal of the 1991 subpart Ca guidelines for existing MWC's, and (4) a request for public comment on the ICR document. This preamble and regulatory text are available on the EPA's Technology Transfer Network (TTN) electronic bulletin board. Also available on the EPA's TTN are FACT SHEETS, which summarize the final standards and guidelines. They are suggested reading for persons requiring an overview of the standards and guidelines. The FACT SHEETS can also be obtained by calling Donna Collins at (919) 541–5578. The TTN contains 18 electronic bulletin boards, and the following 5 items are included in the Clean Air Act Amendments (CAAA) bulletin board under menu item "Recently Signed Rules" in file "MWC2.ZIP":

(1) "FACT SHEET: New Municipal Waste Combustors—Subpart Eb Standards (1995)."

(2) "FACT SHEET: Existing Municipal Waste Combustors—Subpart Cb Emission Guidelines (1995)."

(3) Federal Register notice for this promulgation: "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Municipal Waste Combustors" (this document).

(4) "Municipal Waste Combustion: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses," EPA–453/R–95–0136.

(5) Information Collection Request document for these standards for new sources: "Standard Form 83 Supporting Statement for ICR No. 1506.5—1995 Standards for New Municipal Waste Combustors (Subpart Eb)," September 29, 1995.

The TTN is accessible 24 hours per day, 7 days per week except Monday morning from 8:00 a.m. to 12:00 p.m. when the system is updated. The service is free except for the cost of the phone call. Dial (919) 541–5742 to access the TTN. The TTN is compatible with up to a 14,400 bits-per-second (bps) modem. An alternative way to access the TTN is by "telenet," using access code "ttnbbs.rtpnc.epa.gov". Further instructions for accessing the TTN can be obtained by calling the help desk at (919) 541–5384.

*Documents in the Docket.* The background information for today's promulgation includes all of the documents that supported the proposal and promulgation of the subpart Ea standards and subpart Ca guidelines (docket No. A–90–45 and docket No. A–89–08). Key background information documents used in developing the subpart Ea standards, the subpart Ca guidelines, and today's promulgated standards and guidelines are as follows:

(1) "Municipal Waste Combustors—Background Information for Proposed Standards: 111(b) Model Plant Description and Cost Report," EPA–450/3–89–27b, August 1989;

(2) "Municipal Waste Combustors—Background Information for Proposed Standards: Post-Combustion Technology Performance," EPA–450/3–89–27c, August 1989;

(3) "Municipal Waste Combustion Assessment: Combustion Control at

Existing Facilities," EPA–600/8–89–057, August 1989;

(4) "Municipal Waste Combustion Assessment, Technical Basis for Good Combustion Practices," EPA–600/8–89–063, August 1989;

(5) "Municipal Waste Combustors—Background Information for Proposed Standards: Control of $NO_x$ Emissions," EPA–450/3–89–27d, August 1989;

(6) "Municipal Waste Combustors—Background Information for Proposed Standards: Cost Procedures," EPA–450/3–89–27a, August 1989;

(7) "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Waste Combustors," EPA–450/3–91–029, March 1994;

(8) "Municipal Waste Combustors—Background Information for Proposed Guidelines for Existing Facilities," EPA–450/3–89–27e, August 1989;

(9) "Municipal Waste Combustion: Background Information for Promulgated Standards and Guidelines—Summary of Public Comments and Responses," EPA–453/R–95–0136, 1995.

These documents and additional technical information are contained in dockets A–90–45 and A–89–08. Docket materials are available for inspection and copying as described in the ADDRESSES section of this preamble.

*Judicial Review.* Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available by filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are in today's notice may not be challenged later in the civil or criminal proceedings brought by the EPA to enforce these requirements (42 U.S.C. 7607(b)).

*Preamble Outline.* The following outline is provided to aid in locating information in the introductory text (preamble) to the final standards and guidelines.

I. Acronyms, Abbreviations, and Measurement Units
A. Acronyms
B. Abbreviations and Measurement Units
II. Background and Withdrawal of the 1991 Subpart Ca Emission Guidelines
III. Summary of Considerations in Developing the 1995 Standards for New Sources and Guidelines for Existing Sources
A. Purpose of the Standards and Guidelines
B. Technical Basis of the Standards and Guidelines
C. Stakeholders and Public Involvement
IV. Standards of Performance for New Sources (1995)—Summary of the Standards, Impacts of the Standards, and Significant Issues and Changes to the Proposed Standards
A. Summary of the Standards
B. Significant Issues and Changes to the Proposed Standards
1. Applicability
2. Emission Limits for MWC Metals, Acid Gases, Organics, Nitrogen Oxides, and Ash Fugitive Emissions
3. Good Combustion Practices
4. Operator Training and Certification
5. Air Curtain Incinerators
6. Siting Analysis/Materials Separation Plan
7. Compliance and Performance Testing
8. Reporting and Recordkeeping Requirements
C. Impacts of the Standards
V. Guidelines for Existing Sources (1995)—Summary of the Guidelines, Impacts of the Guidelines, and Significant Issues and Changes to the Proposed Guidelines
A. Summary of the Guidelines
B. Significant Issues and Changes to the Proposed Guidelines
1. Designated Facilities
2. Emission Limits for MWC Metals, Acid Gases, Organics, Nitrogen Oxides, and Fugitive Ash Emissions
3. Good Combustion Practices
4. Operator Training and Certification
5. Air Curtain Incinerators
6. Compliance and Performance Testing
7. Reporting and Recordkeeping Requirements and Compliance Schedules
C. Impacts of the Guidelines
VI. Administrative Requirements
A. Docket
B. Paperwork Reduction Act
C. Executive Order 12866
D. Unfunded Mandates Act
E. Executive Order 12875
F. Regulatory Flexibility Act
G. Clean Air Act Procedural Requirements

## I. Acronyms, Abbreviations, and Measurement Units

The following definitions, acronyms, and measurement units are provided to clarify the preamble to the final standards and guidelines.

### *A. Acronyms*

ASME American Society of Mechanical Engineers
BID Background Information Document
CEMS continuous emissions monitoring system(s)
COMS continuous opacity monitoring system(s) dioxins/furans polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans
DSI dry sorbent injection
EPA U.S. Environmental Protection Agency
ESP electrostatic precipitator
FF fabric filter
GCP good combustion practices
ICR information collection request
MACT maximum achievable control technology
MSW municipal solid waste
MWC municipal waste combustor
MWI medical waste incinerator
NSR New Source Review
$NO_x$ nitrogen oxides
OAQPS Office of Air Quality Planning Standards
OMB Office of Management and Budget
PM particulate matter
RDF refuse-derived fuel
RFA Regulatory Flexibility Act
SD spray dryer
SNCR selective noncatalytic reduction
TEQ basis 2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors

### *B. Abbreviations and Measurement Units*

°C=degrees Celsius (degrees Fahrenheit=°C*9/5+32)
Cd=cadmium
CO=carbon monoxide
$CO_2$=carbon dioxide
dscf=dry standard cubic feet (at 14.7 pounds per square inch, 68 °F)
dscm=dry standard cubic meters (at 14 pounds per square inch, 68 °F)
g=gram (454 grams per pound)
g/yr=grams per year
gr=grains (7,000 grains per pound)
HCl=hydrogen chloride
Hg=mercury
kg=kilogram (0.454 kilograms per pound)
kg/yr=kilograms per year
m3=cubic meter (35.3 cubic feet per cubic meter)
mg=milligrams ($10^{-3}$ grams)
Mg=megagram (1.1 tons)
Mg/d=megagrams per day
Mg/yr=megagrams per year
ng=nanogram ($10^{-9}$ grams)
Pb=lead
ppmv=parts per million by volume
$SO_2$=sulfur dioxide
tons/d=tons per day
tons/yr=tons per year
total mass basis (dioxins/furans=total mass of tetra- through octa-chlorinated dibenzo-p-dioxins and dibzofurans

## II. Background and Withdrawal of the 1991 Subpart Ca Emission Guidelines

By the mid-1980's, several studies had been performed to determine whether MWC emissions should be regulated and, if so, under what section of the Clean Air Act. As set forth in the Advanced Notice of Proposed Rulemaking (52 FR 25399, July 7, 1987), the EPA decided to regulate air emissions from MWC's under section 111 of the Clean Air Act, and to base the

regulation on best demonstrated technology, as required by section 111. On December 20, 1989, the EPA proposed standards for new MWC's and guidelines for existing MWC's (54 FR 52251 and 54 FR 52209, respectively). On November 15, 1990, 1990 Amendments to the Clean Air Act were enacted and added section 129 to the Clean Air Act. Section 129 of the Clean Air Act specifies that revised standards and guidelines must be developed for MWC's in accordance with the requirements of both section 111 and new section 129. Section 129 further specifies that revised standards and guidelines be developed for both large and small MWC plants and that the revised standards and guidelines must reflect more restrictive performance levels. Section 129 includes a schedule for revising the 1991 standards and guidelines.

When the EPA did not comply with the section 129 schedule, the Sierra Club, the Natural Resources Defense Council, and the Integrated Waste Services Association filed complaints with the U.S. District Court for the Eastern District of New York. The resulting consent decree required the EPA Administrator to sign a notice of proposed rulemaking not later than September 1, 1994 and a notice of promulgation not later than October 31, 1995 (Nos. CV–92–2093, CV–93–0284, and CV–93–5144). The proposal notice for the standards and guidelines was signed as scheduled and published on September 20, 1994 (59 FR 48198 and 59 FR 48228, respectively). This notice responds to the requirement for the Administrator to sign the final standards and guidelines by October 31, 1995.

The standards and guidelines promulgated on February 11, 1991 (56 FR 5488 and 56 FR 5514, respectively) apply to only large MWC's (capacities above 225 Mg/day) and reflect best demonstrated technology. Today's notice promulgates revised standards and guidelines that are fully consistent with sections 111 and 129 of the Clean Air Act and extend coverage of the revised standards and guidelines to MWC units located at MWC plants with aggregate plant capacity above 35 Mg/day.

Today's promulgated standards for new sources are more stringent than the standards promulgated on February 11, 1991. Today's promulgated standards will apply to plants for which construction commenced after September 20, 1994 or for which reconstruction or modification commenced after June 19, 1996. The guidelines will apply to all MWC's constructed prior to September 20, 1994. The February 11, 1991 subpart Ea standards will remain in effect for plants constructed, modified, or reconstructed between December 20, 1989 and September 20, 1994. Sources subject to the February 11, 1991 subpart Ea standards are also subject to the guidelines being promulgated today under subpart Cb. In some cases, the promulgated subpart Cb guidelines are more stringent than the existing subpart Ea standards. The control technologies being used to meet the emission limits included in the 1991 subpart Ea standards will be able to comply with the promulgated subpart Cb guidelines, except supplemental controls would be required to reduce Hg emissions and fugitive ash emissions. The direct final rule also being published in today's Federal Register will provide consistency between the subpart Ea and Cb rules.

Today's promulgated guidelines under subpart Cb for existing sources are more stringent than the guidelines promulgated under subpart Ca on February 11, 1991. Today's promulgated guidelines will apply to MWC's for which construction commenced on or before September 20, 1994. Today's promulgated guidelines are based on maximum achievable control technology, or MACT, and will require MWC plants to purchase and install different types of air pollution control equipment than the best demonstrated technology-based guidelines promulgated in 1991 under subpart Ca. In consideration of public comments, which supported the withdrawal of subpart Ca, and to satisfy the MACT requirements of section 129 of the Clean Air Act, the EPA is withdrawing the 1991 subpart Ca guidelines as a part of today's action.

## III. Summary of Considerations in Developing the 1995 Standards for New Sources and Guidelines for Existing Sources

### *A. Purpose of the Standards and Guidelines*

Under sections 111 and 129 of the Clean Air Act, the EPA is required to develop and adopt performance standards and guidelines for MWC's. Congress specifically added section 129 to the Clean Air Act to address public concerns about MWC's and other solid waste combustion units. Under section 111, performance standards and guidelines must be developed for new and existing stationary sources that may contribute to air pollution and that may reasonably be anticipated to endanger public health or welfare. Under section 129 of the Clean Air Act, the standards and guidelines adopted for MWC's must be based on MACT.

Independent of Clean Air Act requirements, the general public is concerned about emissions from all sources including MWC's. This is understandable considering (1) about two-thirds of the MWC population is located in air quality nonattainment areas with high population densities, and (2) the EPA's 1994 MWC Dioxin Survey identified a limited number of older poorly controlled MWC's with atypically high dioxin/furan emissions (interim corrective actions have been taken at these MWC's).

The MWC industry has aggressively controlled new MWC plants built since 1990, and almost half of the existing population currently is equipped with high efficiency air pollution control equipment. The other older half of the population has control equipment with lower efficiency. As mentioned earlier, health effects are associated with many of the pollutants emitted from MWC's, and the standards and guidelines being promulgated today will bring all MWC units up to the same high performance level.

The EPA estimates that in the United States, there are about 307 operating MWC units at 128 plants, providing a total U.S. MSW combustion capacity of about 94,000 Mg/day. Approximately 16 percent of MSW generated in the United States is combusted.

Emissions from MWC's contain organics (dioxins/furans), metals (Cd, Pb, Hg, PM, and opacity), acid gases (Hcl and $SO_2$), and $NO_X$. These pollutants can have adverse effects on both public health and welfare. The EPA recently released a draft report reassessing the health effects of human exposure to dioxins/furans. In the draft report, which is currently undergoing review, MWC's are identified as one source of dioxin/furan emissions. Other MWC emissions of principal concern include Pb, Cd, and Hg. Acid gas and $NO_X$ emissions contribute to acid rain when emissions of $SO_2$ and $NO_X$ are chemically transformed in the atmosphere into sulfuric and nitric acids and return to earth as wet deposition such as rain, fog, or snow, or as dry deposition such as fine particles or gases. Acid deposition damages lakes and harms forests and buildings. Nitrogen oxides also contribute to low-level ozone and urban area smog formation.

Today's standards and guidelines are set forth as emission limits and will significantly reduce MWC emissions.

*B. Technical Basis of Standards and Guidelines*

Section 129(a)(2) of the Clean Air Act requires the revised standards for new MWC's and revised guidelines for existing MWC's to reflect the maximum degree of reduction in emissions of designated air pollutants, taking into consideration the cost of achieving such emission reduction, and any non-air-quality health and environmental impacts and energy requirements that the Administrator determines are achievable for a particular category of sources. (This control level is commonly referred to as the "maximum achievable control technology, or "MACT".) Section 129 also provides that standards for new sources may not be less stringent than the emissions control achieved in practice by the best controlled similar unit. This is commonly referred to as the "MACT floor" for new MWC units. Additionally, section 129 provides that the emission limitations in the guidelines for existing MWC's may not be less stringent than the average emission limitations achieved by the best performing 12 percent of units in the category. This is commonly referred to as the "MACT floor" for existing MWC units. Emission control options less stringent than the MACT floor can not be considered in developing section 129 standards and guidelines.

Technical data on the number and size of MWC's, control technologies in use, permit emission limits, and emission test data were used to determine the MACT floor for new and existing MWC's and to define control alternatives. The types of data EPA considered in selecting final standards and guidelines included the following: (1) Over 100 MWC plant-specific questionnaires; (2) emissions information from literature, and State and local agencies; and (3) EPA and industry test reports. Overall, the EPA used performance test data from over 60 MWC plants to develop the standards and guidelines. After proposal, the EPA reviewed additional data submitted with public comments on the proposal and data that EPA gathered from States and industry. Based on the new information, the EPA reviewed both the proposed MACT determinations for new and existing MWC's and the regulatory alternatives. The reassessment of the standards and guidelines in light of the new data resulted in the EPA revising the MACT emission rates for some pollutants.

The most significant changes to the standards and guidelines since proposal are summarized in sections IV.B and V.B., respectively, of this preamble. The rationales for these changes as well as other changes are summarized in the preamble and discussed in more detail in the BID. In keeping with the Administrator's "reinventing government" initiative, several of the changes to the guidelines and standards were made to streamline the regulations and provide increased flexibility while optimizing environmental control by using common sense initiatives. Examples of these changes include the following: (1) Reduced dioxin/furan testing for MWC plants with low dioxin/furan emission levels; (2) $NO_x$ guidelines for large MWC plants that allow plants to use an emissions averaging plan to demonstrate compliance for two or more existing MWC units located at the same facility; (3) clarification of siting requirements for new MWC's; (4) providing additional time for MWC operators to obtain operator training and certification; (5) replacing quarterly reporting with annual reporting (semiannual reporting if noncompliance); (6) revised text to clarify that the regulations do not apply to MWC plants with combustion capacity less than 35 Mg/day; (7) exemption for plants firing small amounts of MSW (10 Mg/day or less); (8) exemption for combustion of clean wood; and (9) allowing certain records to be maintained in either electronic or paper format without duplication. All of these changes are discussed further in sections IV and V of this preamble, and represent changes that improve the effectiveness and efficiency of the standards and guidelines without any reduction in environmental protection.

*C. Stakeholders and Public Involvement*

Prior to proposal, in accordance with section 117 of the Clean Air Act, the EPA consulated with advisory committees, independent experts, Federal departments and agencies, and owners, operators, and manufacturers of MWC's. Numerous discussions were held with governmental entities, industry representatives, and environmental groups including, but not limited to, the following groups: the U.S. Conference of Majors, the National League of Cities, the National Association of Counties, the Municipal Waste Management Association, the Solid Waste Association of North America, the Integrated Waste Services Association, the Sierra Club, and the Natural Resources Defense Council.

The standards and guidelines being adopted today were proposed in the Federal Register on September 20, 1994 (59 FR 48198 and 59 FR 48228, respectively). The preambles for the proposed standards and guidelines describe the rationale for the proposed standards and guidelines. After proposal, the EPA provided interested persons the opportunity to comment through a written comment period. The public comment period was from September 20, 1994 to November 21, 1994. Comments were received from private citizens, industry representatives, environmental groups, and governmental entities. The comments have been carefully considered, and changes have been made in the standards and guidelines where appropriate. Sections IV and V of this preamble discuss the major revisions to the standards and guidelines to address the commenters' concerns.

## IV. Standards of Performance for New Sources (1995)—Summary of the Standards, Impacts of the Standards, and Significant Issues and Changes to the Proposed Standards

This section presents a summary of the final standards, including identification of the source category and pollutants being regulated, and presentation of the final emission limits and their associated performance testing, monitoring, recordkeeping and reporting requirements. This section also discusses the most significant changes to the proposed standards. Also discussed are the impacts of the final standards.

*A. Summary of the Standards*

The final standards (subpart Eb) apply to each new MWC unit located at an MWC facility that has an aggregate plant capacity to combust over 35 Mg/day of MSW, for which construction commenced after September 20, 1994 or modification or reconstruction commenced after June 19, 1996. Municipal waste combustors that commenced construction on or before September 20, 1994 are not covered under the subpart Eb standards. Municipal waste combustors constructed on or before September 20, 1994 are considered existing sources and are subject to the guidelines that are addressed in section V of this notice.

An MWC is defined as any setting or equipment that combusts MSW including air curtain incinerators. Municipal solid waste combustion includes the direct combustion of MSW or the combustion of MSW gases from pyrolysis or gasification. The MWC unit includes any type of setting or equipment including combustion equipment with or without heat recovery.

Municipal solid waste is defined as a mixture or a single-item waste stream of household, commercial, and/or institutional discards. This would include materials such as paper, yard waste, plastics, leather, rubber, glass, metals, and other combustible and noncombustible materials. The final MSW definition is revised slightly from proposal to make it clear that MSW does not include used motor oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles. Although these wastes are not MSW, they can be intermixed with MSW and can be combusted in MWC plants. The regulations do not prohibit their combustion. The definition of MSW includes RDF, which is municipal solid waste that is shredded (or pelletized) before combustion. Any medical, industrial, or other type of waste combustor plant with capability to combust greater than 35 Mg/day of MSW and is in compliance with a federally enforceable permit to combust less than 10 Mg/day of MSW is not covered by this standard. Furthermore, cofired MWC plants that combust less than 30 percent MSW (on a calendar quarter basis) are exempt. A summary of the final standards is presented in table 1. In table 1, significant revisions made since proposal are marked with an asterisk (*) and are discussed in section IV.B.

TABLE 1.—SUMMARY OF STANDARDS FOR NEW MWC'S (SUBPART EB)[a]

[* indicates a significant change since proposal and the change is discussed in this preamble]

Applicability

The final standards apply to new MWC units located at plants with capacities to combust greater than 35 Mg/day of residential, commercial, and/or institutional discards. Industrial manufacturing discards are not covered by the standards. Any medical, industrial manufacturing, municipal, or other type of waste combustor plant with capacity to combust greater than 35 Mg/day of MSW and with a federally enforceable permit to combust less than 10 Mg/day of MSW is not covered.*

| Plant Size (MSW combustion capacity) | Requirement. |
|---|---|
| ≤35 Mg/day* | Not covered by standards. |
| >Mg/day but ≤225 Mg/day (referred to as small MWC plants) | Subject to provisions listed below. |
| >225 Mg/day (referred to as large MWC plants) | Subject to provisions listed below. |

Good Combustion Practices

- Applies to large and small MWC plants.
- A site-specific operator training manual is required to be developed and made available for MWC personnel.
- The EPA or State MWC operator training course must be completed by the MWC chief facility operator, shift supervisors, and control room operators.
- The ASME (or State-equivalent) operator certification must be obtained by the MWC chief facility operator (mandatory), shift supervisors (mandatory), and control room operators (optional).*
- The MWC load level is required to be measured and not to exceed 110 percent of the maximum load level measured during the most recent dioxin/furan performance test.
- The PM control device inlet flue gas temperature is required to be measured and not to exceed the temperature 17 °C above the maximum temperature measured during the most recent dioxin/furan performance test.
- The CO level is required to be measured using CEMS, and the concentration in the flue gas is required not to exceed the following:

| MWC type | CO level | Averaging time (hours) |
|---|---|---|
| Modular starved-air and excess-air | 50 ppmv | 4 |
| Mass burn waterwall and refractory | 100 ppmv | 4 |
| Mass burn rotary refractory | 100 ppmv | 4 |
| Fluidized-bed combustion | 100 ppmv | 4 |
| Pulverized coal/RDF mixed fuel-fired | 150 ppmv* | 4 |
| Spreader stoker coal/RDF mixed fuel-fired | 150 ppmv* | 24 |
| RDF stoker | 150 ppmv | 24 |
| Mass burn rotary waterwall | 100 ppmv | 24 |
| MWC Organic Emissions (measured as total mass dioxins/furans): | | |
| • Dioxins/furans (performance test by EPA Reference Method 23) | | |
| Large and small MWC plants | 13 ng/dscm total mass (mandatory) or 7 ng/dscm total mass (optional to qualify for less frequent testing).*[b] | |

| MWC type | CO level | Averaging time (hours) |
|---|---|---|
| • Basis for dioxin/furan limit | GCP and SD/FF/carbon injection. | |
| MWC Metal Emissions: | | |
| • PM (performance test by EPA Reference Method 5) | | |
| Large and small MWC plants | 24 mg/dscm (0.010 gr/dscf).* | |
| • Opacity (performance test by EPA Reference Method 9) | | |
| Large and small MWC plants | 10 percent (6-minute average) | |
| • Cd (performance test by EPA Reference Method 29) | | |
| Large and small MWC plants | 0.020 mg/dscm (8.7 gr/million dscf).* | |
| • Pb (performance test by EPA Reference Method 29) | | |
| Large and small MWC plants | 0.20 mg/dscm (87 gr/million dscf).* | |
| • Hg (performance test by EPA Reference Method 29) | | |
| Large and small MWC plants | 0.080 mg/dscm (35 gr/million dscf) or 85-percent reduction in Hg emissions | |
| • Basis for PM, opacity, Cd, Pb, and Hg limits | | |
| Large and small MWC plants | See basis for dioxin/furan limit | |
| MWC Acid Gas Emissions: | | |
| • $SO_2$ (performance test by CEMS) | | |
| Large and small MWC plants | 30 ppmv or 80-percent reduction in $SO_2$ emissions | |
| • HCl (performance test by EPA Reference Method 26) | | |
| Large and small MWC plants | 25 ppmv or 95-percent reduction in HCl emissions | |
| • Basis for $SO_2$ and HCl limits | See basis for dioxin/furan limit.. | |
| Nitrogen Oxides Emissions: | | |
| • NOx (performance test by CEMS) | | |
| Large MWC plants | 150 ppmv, except 180 ppmv is allowed for the first year of operation.* | |
| Small MWC plants | No $NO_X$ control requirement | |
| • Basis for $NO_X$ limit | | |
| Large MWC plants | SNCR | |
| Small MWC plants | No $NO_X$ control requirement. | |

| MWC type | CO level | Averaging time (hours) |
|---|---|---|
| Fugitive Ash Emissions: | | |
| • Fugitive emissions (performance test by EPA Reference Method 22) Large and small MWC plants | Visible emissions less than 5 percent of the time from the ash transfer system except during maintenance and repair activities.*. | |
| • Basis for fugitive emissions limit | Wet ash handling or enclosed ash handling. | |
| Siting Requirements: | | |
| • Large and small MWC plants | (1) Siting analysis*, (2) materials separation plan, and (3) public meetings (including response to comments) | |
| Performance Testing and Monitoring Requirements: | | |
| • Reporting frequency | Annual (semi-annual if violation).* | |
| • Load, flue gas temperature | Continuous monitoring, 4-hour block arithmetic average. | |
| • CO | CEMS, 4-hour block or 24-hour daily arithmetic average, as applicable. | |
| • Dioxins/furans, PM, Cd, Pb, HC1, and Hg Large MWC plants | Annual stack test (see reduced testing option for low emitters of dioxins/furans).* | |
| Small MWC plants | Annual or third year stack test.* | |
| • Opacity | COMS (6-minute average) and annual stack test. | |
| • $SO_2$ | CEMS, 24-hour daily geometric mean. | |

| MWC type | CO level | Averaging time (hours) |
|---|---|---|
| • $NO_X$ (large MWC plants only) | CEMS, 24-hour daily arithmetic average. | |
| • Fugitive ash emissions | Annual test. | |

*=a significant change since proposal, and the change is discussed in this preamble.
[a] All concentration levels in the table are corrected to 7 percent $O_2$, dry basis.
[b] Although not part of the dioxin/furan limit, the limit of 13 ng/dscm total mass is equal to about 0.1 to 0.3 ng/dscm TEQ. The optional reduced testing limit of 7 ng/dscm total mass is equal to about 0.1 to 0.2 ng/dscm TEQ.

B. *Significant Issues and Changes to the Proposed Standards* (Issues were marked with the "*" symbol in table 1)

The most significant changes to the standards since proposal are discussed below. Additional rationales for these changes, as well as other changes being made are provided in the promulgation BID (EPA–453/R–95–0136). Some of the changes made that are not discussed below include GCP requirements, monitoring requirements, and reporting and recordkeeping requirements.

1. Applicability

At proposal, an MWC plant of 35 Mg/day capacity that cofired 30 percent (10 Mg/day) or less MSW would have been exempt from the standards. This 30 percent cofiring provision was retained in the final rule. Additionally, a 10 Mg/day exemption has been added to the final rule to exempt all combustion units independent of size that fire only a small amount of MSW. In the final standards, any medical, industrial manufacturing, or other type of waste combustor capable of combusting more than 35 Mg/day MSW but actually combusting less than 10 Mg/day of MSW is not subject to this rule, provided it submits an initial report containing a copy of the plant's federally enforceable permit limiting the amount of MSW that may be combusted by the plant to less than 10 Mg/day and keeps records on the daily weight of MSW fired.

At proposal, a cofired combustor was defined as a unit combusting a fuel feed stream where 30 percent or less was comprised of MSW, as measured on a 24-hour daily basis. Several commenters expressed concern about a cofired status determination being made on a daily basis. For example, some facilities that burn biomass material including yard waste would have difficulty making a determination of cofired status on a daily basis. Biomass material including yard waste (which is MSW) and clean wood (which is not MSW) are often collected together and stored on- or off-site for a period of time and intermixed before being combusted. In such cases, it is difficult or impossible to determine what percentage of the waste combusted daily was yard waste. After considering the public comments, the EPA determined that the definition of cofired combustor should be revised to allow for measuring the percent MSW burned on a calendar quarterly basis. This change is consistent with current waste refuse storage and recordkeeping procedures.

Also under the proposal, MWC plants of 25 to 35 Mg/day capacity were required to submit an initial notification of construction, but they were not subject to the proposed standards or guidelines. Only MWC plants greater than 35 Mg/day capacity were covered by the proposal. As part of the Administrator's "reinventing government" initiative, the initial notification requirement for MWC plants between 25 and 35 Mg/day capacity was removed from the final rule to minimize the reporting requirement for smaller plants. This change reduced reporting and recordkeeping requirements for both the MWC and the EPA, but did not reduce the level of environmental protection provided by the standards and guidelines being adopted today.

Under the proposed standards, clean wood was included in the definition of MSW. Several commenters disagreed with this decision to cover clean wood under the MWC standards. Under the final rule, clean wood is not considered to be MSW. Clean wood includes untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood is exempt from the definition of MSW because available data indicate that combustion of clean wood results in low emission of dioxins/furans, Hg, and other pollutants. Clean wood is predominantly an agricultural, industrial, or other nonmunicipal solid waste; regulation of the combustion of these types of wastes is currently being addressed under a separate rulemaking. Clean wood does not include yard waste, which is covered by the final MWC standards; yard waste includes grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, or nonmanufacturing industrial sources as part of maintenance activities associated with yards or other private or public lands.

2. Emission Limits for MWC Metals, Acid Gases, Organics, Nitrogen Oxides, and Ash Fugitive Emissions

Many commenters expressed concern as to whether the proposed emission limits for all regulated pollutants are actually achievable by an MWC. These commenters noted that no single MWC existed with all the controls proposed as MACT (SD/FF/SNCR and carbon injection) and the standards may not be achievable. Since proposal, the EPA has obtained data from 12 new MWC units at 5 MWC plants that have recently begun operation and all are equipped with the full set of controls proposed as MACT (SD/FF/SNCR and carbon injection). Data from these plants show that all proposed emission limits for all pollutants are simultaneously being achieved. Therefore, the EPA remains convinced that properly designed, constructed, maintained, and operated MWC plants can comply with all pollutant emission limits included in the final standards.

For new sources, the MACT floor for each regulated pollutant was established as the emission level achievable by the best controlled source. To determine new source MACT for proposal, the EPA evaluated the performance of SD/FF/SNCR/carbon injection. Since proposal, the EPA obtained additional information regarding the performance of the control technologies determined to be MACT (SD/FF/SNCR/carbon injection). Based on the new information and a reevaluation of the data used for proposal, the EPA revised the achievable performance levels for PM, Cd, Pb, Hg, dioxins/furans, and $NO_X$. Changes to the MACT floor levels and the selected MACT standards resulting from these reevaluations are discussed below.

a. *MWC Acid Gases.* The MACT floor levels and selected MACT emission limits for MWC acid gases are the same as proposed.

b. *MWC Metals.* Based on comments and data received since proposal, the EPA reassessed the achievable performance levels for PM, Cd, and Pb by SD/FF systems. Based on this reassessment of available data, the selected PM, Cd, and Pb MACT emission limits were revised. For both large and small plants, the PM MACT floor and selected MACT limit were revised to 24 mg/dscm (proposal was 15 mg/dscm). The Cd MACT floor and selected MACT limit were revised to 0.020 mg/dscm (proposal was 0.010 mg/dscm). The Pb MACT floor and selected MACT limit were revised to 0.20 mg/dscm (proposal was 0.10 mg/dscm). The selected MACT limits for all three pollutants were revised because, based on available data, emission levels more stringent than these levels are not considered to be continuously achievable.

The final MACT limits for Hg emissions for large and small plants remain at the same levels as proposed (0.080 mg/dscm or an 85 percent reduction in Hg emissions); however, the MACT floor level was revised. At proposal, the MACT floor for Hg was based on use of an SD/FF system combined with GCP. Carbon injection was not commercially operational at any MWC. At proposal, MACT for Hg was based on use of an SD/FF system in combination with carbon injection. This MACT selection was based on evaluation of emission reductions, costs, and other factors, as described in the proposal preamble (59 FR 48198, September 20, 1994). Several commenters questioned the selection of an Hg MACT limit based on carbon injection when carbon injection was not commercially operated. Since proposal, data have become available for 12 new MWC units initiating operation using carbon injection commercially, and all were meeting the proposed Hg limits. Since carbon injection is now in commercial operation, the EPA revised the final MACT floor for Hg to be based on SD/FF in combination with carbon injection and GCP.

c. *MWC Organics.* The final emission limits for dioxins/furans for new MWC's remain at the same level as proposed; however, the technology basis for the floor level of control has been changed. As discussed in section IV.B.2.b regarding MWC metals (Hg), the EPA reviewed new data received since proposal and concluded that SD/FF combined with GCP and carbon injection is the best emission control technology being used by MWC's for Hg and dioxin/furan control, and is, therefore, the basis of the final MACT floor. The data gathered prior to proposal as well as data for new units operating with these controls show that a dioxin/furan level of 13 ng/dscm is achievable. The final MACT emission limit for dioxins/furans for new units at both large and small plants is equal to the MACT floor and remains at 13 ng/dscm (total mass basis).

The format of the final dioxin/furan emission limit changed from the proposed format. The EPA proposed a dual format for the dioxin/furan emission limit (total or TEQ) and requested comments on the use of this dual format. No commenters agreed with the dual format as proposed. The EPA has selected total mass dioxin/furan emissions in the final standards. The TEQ format is not used. There is no indication that TEQ's would be a better measure of emissions control performance than total dioxins/furans. Furthermore, most test data on which the standards are based were expressed as total dioxins/furans. Additionally, because there have been different methods for calculating TEQ over time and the ratio of total dioxins/furans to TEQ dioxins/furans varies among MWC's, there would be additional uncertainty in using a TEQ data base. Refer to the promulgation preamble (56 FR 5504) for the 1991 subpart Ea standards for additional discussion.

Although not part of the dioxin/furan limit, the limit of 13 ng/dscm total mass is equal to about 0.1 to 0.3 ng/dscm TEQ.

In addition to the final dioxin/furan limit of 13 ng/dscm, a provision has been added to the final standards allowing less frequent dioxin/furan testing for new plants achieving dioxin/furan emission levels lower than 7 ng/dscm. Data for new MWC's using SD/FF/SNCR/carbon injection technology suggest this is a realistic goal for many new MWC's and will encourage MWC's to optimize performance of pollution control systems. Refer to section IV.B.7 for a description of the alternative dioxin/furan testing schedule.

d. *Nitrogen Oxides.* As explained at proposal (59 FR 48198, September 20, 1994), the combination of SD/FF, GCP, and SNCR was the basis of the new source MACT floor for $NO_X$. These technologies remain the basis for the final $NO_X$ MACT floor. Since proposal, the EPA has obtained additional $NO_X$ data showing that large MWC plants equipped with SNCR can continuously achieve an emission level of 150 ppmv over a 24-hour averaging period. The new data were obtained from the same plant that was the basis of the proposed $NO_X$ emission level of 180 ppmv. The new data are representative of what $NO_X$ emission level can be achieved after a plant has had a period of time to adjust to operation with the SNCR system. Applications of SNCR typically require some site-specific fine-tuning to achieve optimum performance levels. Based on the revised data, a two-phase standard is being adopted. The final $NO_X$ standard for MWC's at large plants allows time to "fine-tune" the SNCR system. The final standard for MWC's at large plants is 180 ppmv (24-hour averaging period) for the first year of operation, and 150 ppmv (24-hour averaging period) thereafter.

The final standards do not require $NO_X$ control for MWC's at small plants.

e. *MWC Fugitive Ash Emissions.* The proposed fugitive ash emission limit allowed no visible emissions from ash handling and transfer points. Several commenters objected to the proposed level of no visible emissions. The commenters were concerned that even where the best ash management practices such as wetting the ash or enclosing transfer systems, there may be short periods of time when visible emissions are observed, such as during maintenance. The proposal was based on about 16 hours of method 22 visible emissions data for ash handling practices at two MWC plants and observations (not using method 22) at two additional MWC plants. Since proposal, the EPA has reviewed visible emission data from other industries that use similar transfer systems. Based on comments received and the review of additional data, the final fugitive ash emission limit was revised to limit visible emissions to no more than 5 percent of the time.

As part of the final fugitive ash emission requirements, an exemption has been provided during maintenance and repair activities, because these necessary activities may require opening of an enclosure that could generate short-term visible emissions.

3. Good Combustion Practices

The proposed standards included CO limits for nine categories of combustor technologies, including, among others, RDF stoker combustors and coal/RDF mixed fuel-fired combustors. Commenters requested clarification on which CO limit applies to a stoker unit that is designed to combust coal and RDF but only combusts RDF. Under the final standards, a spreader stoker unit burning RDF only or cofiring RDF with coal would be subject to the proposed RDF stoker CO limit. To clarify this

requirement, the final CO requirements include an additional category of combustor technology referred to as "spreader stoker coal/RDF mixed fuel-fired combustors," which are assigned the same CO limit and averaging time as RDF stoker combustors (150 ppmv, 24-hour averaging time). The final standards further clarify that the category of combustors referred to in the proposed standards as coal/RDF mixed fuel-fired combustors only includes pulverized coal/RDF mixed fuel streams, and the CO limit and averaging time remains the same as proposed (150 ppmv, 4-hour averaging time).

4. Operator Training and Certification

The proposed standards required full ASME certification of chief facility operators and shift supervisors within 6 months of startup of an affected MWC. Various commenters including ASME pointed out that the proposed standards did not include sufficient time for ASME to conduct full certification exams for all MWC operators. After considering these comments, the EPA revised the operator training requirements to allow additional time for ASME (or State) certification exams. In the final standards, chief facility operators and shift supervisors at new MWC plants must obtain ASME or State-approved provisional certification within 1 year after promulgation or 6 months after startup, whichever is later. In addition, by this same date (1 year after promulgation or 6 months after startup, whichever is later), the same personnel must be either fully certified or scheduled with ASME or the State to take a full certification exam (instead of actually obtaining full certification within 1 year, as proposed).

5. Air Curtain Incinerators

No changes were made to the proposed standards for air curtain incinerators. As discussed above in section IV.B.1, the final standards do not cover combustion of clean wood; therefore, air curtain incinerators combusting only clean wood are not covered by the standards.

6. Siting Analysis/Materials Separation Plan

Various commenters said the proposed siting analysis was not consistent with section 129 of the Clean Air Act. Commenters also argued that the proposed siting requirements were either too stringent or not stringent enough. The siting analysis in the final rule has been reworded to allow for a consideration of alternatives, on a site-specific basis, to minimize to the maximum extent practicable potential risks to the public health or the environment. These changes ensure consistency with section 129(a)(3) of the Clean Air Act.

7. Compliance and Performance Testing

Both the proposed and final standards require all plants to perform annual performance tests for dioxin/furan emissions. However, a provision for less frequent dioxin/furan testing has been added to the final rule to encourage MWC plants to achieve emission levels significantly lower than 13 ng/dscm. By achieving low dioxin/furan emissions, they would qualify for less frequent testing and thereby reduce their testing costs. If all MWC units at an MWC plant achieve 7 ng/dscm dioxins/furans or less during performance testing for 2 consecutive years of operation, the plant can elect to conduct dioxin/furan testing on one unit per year. The plant must test units in sequence (e.g., a 3-unit plant would test unit 1 (year 1), unit 2 (year 2), unit 3 (year 3), unit 1 (year 4), etc.). If an annual performance test conducted on any unit indicates total dioxin/furan emissions are greater than 7 ng/dscm, the plant must revert to testing all units annually beginning the following year until the 2-year compliance record is reestablished.

For small plants, two options are provided. The one-unit incentive schedule discussed above is provided for dioxin/furan testing. An alternative 3-year testing option is also provided for small plants. The alternative 3-year testing option allows small plants to conduct performance tests for dioxins/furans, as well as PM, HCl, Cd, Pb, and Hg only once every 3 years if the plant demonstrates compliance with all pollutant emission limits for 3 consecutive years and continues to demonstrate compliance every third year. The owner or operator of a small plant may choose either option for performance testing.

8. Reporting and Recordkeeping Requirements

Reporting requirements have been changed from quarterly as proposed to annual (semiannual if any emission limits or operating parameters are violated) to reduce the burden on affected plants. In recognition of the cost associated with reporting requirements, the EPA reconsidered the effectiveness of quarterly versus annual reporting for the purpose of determining compliance. After careful reconsideration, the EPA has concluded that annual reporting will provide adequate information for most plants. [The EPA notes, however, that once an MWC is required to obtain a Title V Operating Permit, the Title V reporting requirements given in Section 504(a) of the Act will supersede the annual reporting requirements presented above. Section 504(a) requires permittees to submit monitoring reports to the permitting authority no less often than every six months. See 42 U.S.C. 7661c(a).]

*C. Impacts of the Standards*

The final standards can be achieved by utilizing any technology. The basis for the MACT-based limits at both proposal and promulgation remain the combination of GCP/SD/FF and carbon injection for new large and small plants, and the additional use of SNCR at large plants. Because the technology basis for the final standards is the same as at proposal, the impacts analysis presented at proposal has not been revised. Table 2 provides a brief summary of the air and cost impacts of the standards. The summary in table 2 provides impacts estimates relative to two baseline scenarios: a pre-1989 baseline (typical control prior to the 1991 subpart Ea standards) and a 1991 baseline (typical control under the 1991 subpart Ea standards). Refer to the preamble to the proposed standards (59 FR 48198) for a detailed summary of these air and control cost impacts, as well as a discussion of the water, solid waste, energy, and economic impacts of the rule. The national impacts estimates provided in table 2 and discussed in the proposal preamble represent the EPA's estimate of the worst case of impacts that would result from implementation of the standards. Recent data suggest a reduction in the construction of new MWC's. This would reduce the cost of the standards.

TABLE 2.—IMPACTS OF THE CURRENT SUBPART EA AND PROMULGATED SUBPART EB STANDARDS

| Parameter | Increment of promulgated standards over the 1991 standards | 1991 Standards [a] | Total [b] |
|---|---|---|---|
| New MWC's subject to Standards in the Fifth Year After Promulgation: | | | |
| Combustion capacity ($10^6$ Mg/yr) | 0.8 | 16.8 | 17.6 |
| Number of MWC plants | 24 | 48 | 72 |
| Cost (1990 Dollars): | | | |
| Capital cost ($$10^6$) | 156 | 613 | 769 |
| Annualized cost ($$10^6$/yr) | 43 | 157 | 200 |
| Average cost increase ($/Mg MSW combusted) | 1.95 | 11.55 | 13.50 |
| Annual Emissions Reduction (Mg/yr): | | | |
| $SO_2$ | 3,000 | 35,000 | 38,000 |
| Hcl | 4,000 | 46,000 | 50,000 |
| PM | 800 | 5,700 | 6,500 |
| Cd | 1 | 9 | 10 |
| Pb | 17 | 140 | 157 |
| Hg | 18 | 9 | 27 |
| $No_x$ | 200 | 10,300 | 10,500 |
| Total dioxins/furans (kg/yr) | 1 | 28 | 29 |

[a] The impacts are based on a pre-1989 baseline (i.e., a baseline prior to the effective date of the subpart Ea standards.
[b] The total impacts are calculated by adding the incremental impacts of the promulgated standards (subpart Eb) to the impacts of the 1991 standards (subpart Ea). These impacts would be equivalent to the total impacts of the promulgated standards over a pre-1989 baseline.

A number of comments were received on the possible effects on EPA's costing analysis following the recent Supreme Court decision that "flow control" is unconstitutional. The EPA considered the effect of flow control on the financing of new MWC's. In summary, the EPA finds that if tipping fees are raised to cover the increased costs of these regulations, then the lack of "flow control" requirements will likely result in fewer MWC's being constructed and a shift of wastes to other disposal options. The impacts of the flow control decision is likely to be very place-specific depending on the relative tipping fees of MWC's and other disposal options, transportation costs, and institutional factors.

## V. Guidelines for Existing Sources (1995)—Summary of the Guidelines, Impacts of the Guidelines, and Significant Issues and Changes to the Proposed Guidelines

This section presents a summary of the final guidelines, including identification of the source category and pollutants being regulated, and presentation of the final emission limits and their associated performance testing, monitoring, recordkeeping, and reporting requirements and compliance schedules. This section also provides a discussion of the most significant issues and changes to the proposed guidelines. Also mentioned are the impacts of the final guidelines.

The EPA strongly believes (based on emissions data from MWC's which incorporate the necessary control technology) that the air pollution control technology to be retrofitted to existing MWC's to meet the emission guidelines will reduce actual emissions to levels significantly below the limits established by the emission guidelines. There remains, however, some uncertainty as to the actual performance level that will be achieved on a continuous basis by the control technology when installed at large MWC plants where ESP-based scrubber systems are used. Therefore, the dioxin/furan emission limits included in the emission guidelines for some types of MWC's, while still significantly below the MACT floor, are slightly less stringent than those included in the proposal.

The EPA will track the implementation of the guidelines and annual performance test results in order to monitor the level of emissions including dioxin/furan control actually achieved by the guidelines. Additionally, the EPA may conduct supplemental dioxin/furan tests. The EPA will also meet with MWC owners and operators as needed to review the performance of the air pollution control technology and the effectiveness of maintenance and operational practices in order to provide information that will lead to optimal performance of emission control technology, and will work with MWC owners and operators to assure a continued high level of public safety.

### *A. Summary of the Guidelines*

The final guidelines require States to develop emission regulations limiting air emissions from each existing MWC unit located at a MWC plant that has an aggregate plant capacity to combust more than 35 Mg/day of MSW, for which construction commenced on or before September 20, 1994.

The aggregate design capacity of all existing MWC's at an MWC plant shall be considered in determining: (1) Whether a plant is subject to the guidelines; and (2) what control levels are applicable. The capacity of new MWC's (i.e., those that commenced construction after September 20, 1994 or that commenced modification or reconstruction after June 19, 1996 that are located at the MWC plant are not considered in determining applicability of the guidelines but would be considered in determining the applicability of subpart Eb (standards for new sources). Only MWC units constructed before September 20, 1994 are considered for determining the applicability of the guidelines. Modification of an existing MWC (or funds spent) to comply with the emission guidelines would not be considered in determining if an existing MWC unit was subject to the standards for new MWC's (subpart Ea or Eb).

Municipal waste combustion plants with a federally enforceable permit to combust less than 10 Mg/day of MSW are exempt from the requirements of the guidelines as long as they submit a notification of exemption and keep daily records of the weight of MSW combusted.

Cofired combustors (i.e., that combust less than 30 percent MSW) located at a plant with an aggregate plant capacity greater than 35 Mg/day are exempt from the requirements of the guidelines as

long as they submit a notification of exemption and keep records of the weight of MSW combusted on a calendar quarter basis.

The definitions of MWC and MSW have been revised but are the same for the guidelines as for the standards, and are discussed in the summary of the standards in section IV.A of this notice.

A summary of the final guidelines is presented in table 3.

TABLE 3. SUMMARY OF GUIDELINES FOR EXISTING MWC'S (SUBPART CB) [a]

[* indicates a significant change since proposal and the change is discussed in this preamble]

| | |
|---|---|
| Applicability | |
| The final guidelines apply to existing MWC's located at plants with capacities to combust greater than 35 Mg/day of residential, commercial, and/or institutional discards. Industrial manufacturing discards are not covered by the guidelines. Any medical, industrial manufacturing, municipal, or other type of waste combustor plant with capacity to combust greater than 35 Mg/day of MSW and with a federally enforceable permit to combust less than 10 Mg/day of MSW is not covered.* | |
| Plant Size (MSW combustion capacity) | Requirement |
| <35 Mg/day* | Not covered by guidelines. |
| > 35 Mg/day but ≥225 Mg/day (referred to as small MWC plants) | Subject to provisions listed below. |
| > 225 Mg/day (referred to as large MWC plants) | Subject to provisions listed below. |
| Good Combustion Practices | |
| • Applies to large and small MWC plants. | |
| • A site-specific operator training manual is required to be developed and made available for MWC personnel. | |
| • The EPA or a State MWC operator training course would be required to be completed by the MWC chief facility operator, shift supervisors, and control room operators. | |
| • The ASME (or State-equivalent) provisional and full operator certification must be obtained by the MWC chief facility operator (mandatory), shift supervisors (mandatory), and control room operators (optional).* | |
| • The MWC load level is required to be measured and not to exceed 110 percent of the maximum load level measured during the most recent dioxin/furan performance test. | |
| • The maximum PM control device inlet flue gas temperature is required to be measured and not to exceed the temperature 17°C above the maximum temperature measured during the most recent dioxin/furan performance test. | |
| • The CO level is required to be measured using a CEMS, and the concentration in the flue gas is required not to exceed the following: | |

| MWC type | CO level | Averaging time (hours) |
|---|---|---|
| Modular starved-air and excess-air | 50 ppmv | 4 |
| Mass burn waterwall and refractory | 100 ppmv | 4 |
| Mass burn rotary refractory | 100 ppmv | 24 |
| Fluidized-bed combustion | 100 ppmv | 4 |
| Pulverized coal/RDF mixed fuel-fired | 150 ppmv* | 4 |
| Spreader stoker coal/RDF mixed fuel-fired | 200 ppmv* | 24 |
| RDF stoker | 200 ppmv | 24 |
| Mass burn rotary waterwall | 250 ppmv | 24 |

| | |
|---|---|
| MWC Organic Emissions (measured as total mass dioxins/furans): | |
| • Dioxins/furans (performance test by EPA Reference Method 23) | |
| Large MWC plants | |
| MWC units utilizing an ESP-based air pollution control system | 60 ng/dscm total mass (mandatory) or 15 ng/dscm total mass (optional to qualify for less frequent testing).* [c] |
| MWC units utilizing a nonESP-based air pollution control system | 30 ng/dscm total mass (mandatory) or 15 ng/dscm total mass (optional to qualify for less frequent testing).* [c] |
| Small MWC plants | 125 ng/dscm total mass (mandatory) or 30 ng/dscm total mass (optional to qualify for less frequent testing).* [c] |
| • Basis for dioxin/furan limits | |
| Large MWC plants | GCP and SD/ESP or GCP and SD/FF, as specified above. |
| Small MWC plants | GCP and DSI/ESP. |
| MWC Metal Emissions: | |
| • PM (performance test by EPA Reference Method 5) | |
| Large MWC plants | 27 mg/dscm (0.012 gr/dscf). |
| Small MWC plants | 70 mg/dscm (0.030 gr/dscf).* |
| • Opacity (performance test by EPA Reference Method 9) | |
| Large and small MWC plants | 10 percent (6-minute average) |
| • Cd (performance test by EPA Reference Method 29) | |
| Large MWC plants | 0.040 mg/dscm (18 gr/million dscf). |
| Small MWC plants | 0.10 mg/dscm (44 gr/million dscf). |
| • Pb (performance test by EPA Reference Method 29) | |
| Large MWC plants | 0.49 mg/dscm (200 gr/million dscf).* |
| Small MWC plants | 1.6 mg/dscm (700 gr/million dscf). |
| • Hg (performance test by EPA Reference Method 29) | |
| Large and small MWC plants | 0.080 mg/dscm (35 gr/million dscf) or 85-percent reduction in Hg emissions. |
| • Basis for PM, opacity, Cd, Pb, and Hg limits | |
| Large MWC plants | GCP and SD/ESP/CI or GCP and SD/FF/CI |

| | |
|---|---|
| Small MWC plants | GCP and DSI/ESP/CI. |
| MWC Acid Gas Emissions: | |
| • $SO_2$ (performance test by CEMS) | |
| Large MWC plants | 31 ppmv or 75-percent reduction in $SO_2$ emissions.* |
| Small MWC plants | 80 ppmv or 50-percent reduction in $SO_2$ emissions. |
| • HCl (performance test by EPA Reference Method 26) | |
| Large MWC plants | 31 ppmv or 95-percent reduction in HCl emissions.* |
| Small MWC plants | 250 ppmv or 50-percent reduction in HCl emissions. |
| • Basis for $SO_2$ and HCl limits | |
| Large and small MWC plants | See basis for MWC metals. |
| Nitrogen Oxides Emissions | |
| • $NO_X$ (performance test by CEMS) | |
| Large MWC plants: | |
| Mass burn waterwall | 200 ppmv[b]. |
| Mass burn rotary waterwall | 250 ppmv[b]. |
| Refuse-derived fuel combustor | 250 ppmv[b]. |
| Fluidized bed combustor | 240 ppmv[b]. |
| Mass burn refractory | No $NO_X$ control[b] requirement |
| Other | 200 ppmv[b]. |
| Small MWC plants | No $NO_x$ control requirement. |
| • Basis for $NO_x$ limits | |
| Large MWC plants | SNCR. |
| Refractory MWC plants | No $NO_X$ control requirement |
| Small MWC plants | No $NO_X$ control requirement. |
| Fugitive Ash Emissions: | |
| • Fugitive Emissions (performance test by EPA Reference Method 22) | |
| Large and small plants | Visible emissions 5 percent of the time from ash transfer systems except for maintenance and repair activities.* |
| • Basis for fugitive emission limit | Wet ash handling or enclosed ash handling. |
| Performance Testing and Monitoring Requirements: | |
| • Reporting frequency | Annual (semiannual if violation)*. |
| • Load, flue gas temperature | Continuous monitoring, 4-hour block arithmetic average |
| • CO | CEMS, 4-hour block or 24-hour daily arithmetic average, as applicable |
| • Dioxins/furans, PM, Cd, Pb, HCl, and Hg | |
| Large MWC plants | Annual stack test.* |
| Small MWC plants | Annual or third year stack test. |
| • Opacity | COMS (6-minute average) and annual stack test. |
| • $SO_2$ | CEMS, 24-hour daily geometric mean. |
| • $NO_X$ (large MWC plants only) | CEMS, 24-hour daily arithmetic average. |
| • Fugitive ash emissions | Annual test.* |
| Compliance Schedule: | |
| • Large MWC plants | |
| State plans are required to include one of the following three retrofit schedules for compliance with regulatory requirements: (1) Full compliance or closure within 1 year following EPA approval of the State plan; (2) full compliance in 1 to 3 years following issuance of a revised construction or operation permit if a permit modification is required or 1 to 3 years following EPA approval of the State plan if a permit modification is not required, provided the State plan includes measurable and enforceable incremental steps of progress toward compliance; or (3) closure in 1 to 3 years following approval of the State plan, provided the State plan includes a closure agreement. If a State plan allows the second or third scheduling options (i.e., more than 1 year), the State plan submitted to EPA must contain post-1990 test data for dioxins/furans for all MWC units at large plants under the extended schedule. (See § 60.21(h) of subpart B of 40 CFR 60 for additional information relating to measurable and enforceable incremental steps of progress toward compliance). | |
| • Small MWC plants | |
| State plans must require full compliance or closure with regulatory requirements in 3 years or less following issuance of a revised construction or operation permit if a permit modification is required, or within 3 years following EPA approval of the State plan if a permit modification is not required. | |
| • State plans are required to specify that all MWC's at large MWC plants for which construction was commenced after June 26, 1987 comply with the guidelines for Hg and dioxins/furans within 1 year following issuance of a revised construction or operation permit if a permit modification is required, or within 1 year following EPA approval of the State plan, whichever is later. | |
| • State plans are required to specify that owners or operators of MWC's comply with the operator training and certification requirements by 6 months after startup or 1 year after State plan approval by the EPA, whichever is later, for large plants and by 6 months after startup or 18 months after State plan approval by the EPA, whichever is later, for small plants. | |

*=significant change since proposal, and the change is discussed in this preamble.

[a] All concentration levels in the table are converted to 7 percent $O_2$, dry basis.

[b] State plans may allow $NO_X$ emissions averaging between existing MWC units at a large MWC plant. The daily weighted average $NO_X$ emissions concentration from the MWC units included in the emissions averaging plan must comply with the following 24-hour limits: 180 ppmv for mass burn waterwall combustors; 220 ppmv for mass burn rotary waterwall combustors; 230 ppmv for refuse-derived fuel combustors; 220 ppmv for fluidized bed combustors; and 180 ppmv for other combustor types (excluding mass burn refractory combustors). Refer to the regulatory text of the emission guidelines for additional requirements. State plans may also establish a program to allow emissions trading between non-contiguous MWC plants. Such a program shall meet the requirements of the Open Market Trading Rule of Ozone Smog Precursors, proposed August 3, 1995 (60 FR 39668) as finally promulgated.

[c] Although not part of the dioxin/furan limit, the dioxin/furan total mass limits of 30 ng/dscm, 60 ng/dscm, and 125 ng/dscm are equal to about 0.3 to 0.8 ng/dscm TEQ, 0.7 to 1.4 ng/dscm TEQ, and 1.7 to 2.9 ng/dscm TEQ, respectively. The optional reduced testing limits of 15 ng/dscm and 30 ng/dscm total mass are equal to about 0.1 to 0.3 ng/dscm TEQ and 0.3 to 0.8 ng/dscm TEQ, respectively.

*B. Significant Issues and Changes to the Proposed Guidelines*

The most significant changes to the proposed guidelines are discussed below. Rationales for these changes as well as other changes not discussed below are provided in the promulgation BID (EPA–453/R–95–0136). Issues not discussed below include additional changes to GCP requirements, monitoring requirements, recordkeeping and reporting requirements, and compliance schedules.

1. Designated Facilities

Under the final guidelines, any medical, municipal, industrial manufacturing, or other type of waste combustion plant capable of combusting greater than 35 Mg/day MSW but actually combusting less than 10 Mg/day of MSW is not a designated facility, as long as the plant submits an initial report and keeps certain records. This exemption was not included in the proposed guidelines. This exemption is identical to the exemption in the standards for new sources. Section IV.B.1 provides further discussion of the exemption.

Under the final guidelines, a cofired combustor is defined as a unit combusting a fuel feed stream 30 percent or less MSW, as measured on a calendar quarterly basis. At proposal, determination of status as a cofired combustor was measured on a daily basis. This change is identical to the change made in the standards. Refer to section IV.B.1 for further discussion on the change.

The initial reporting requirement in the proposed guidelines for MWC plants with combustion capacity greater than 25 Mg/day but less than or equal to 35 Mg/day is not included in the final guidelines. Both the proposed and final guidelines exempt plants with capacity less than 35 Mg/day. Also, an exemption for combustion of clean wood or clean wood products is included in the final guidelines. This exemption is identical to the exemption in the standards. Refer to section IV.B.1 for discussion of EPA's rationale for this exemption.

2. Emission Limits for MWC Metals, Acid Gases, Organics, and Nitrogen Oxides, and Ash Fugitive Emissions

For existing MWC's, the MACT floor levels and the emission limits for several pollutants have been revised since proposal. See the proposal preamble (59 FR 48228, September 20, 1994), the promulgation BID (EPA–453/R–95–0136), and docket A–90–45 for additional details on the MACT floor analysis methodology and the selection of MACT.

Since proposal, the EPA revised the MACT floors for existing plants based on new permit information received and an updated inventory of operating MWC plants. This revision resulted in revised MACT floor levels for various pollutants for small and large MWC plants. The revised MACT floor pollutant levels for large plants have resulted in more stringent MACT emission limits for $SO_2$, HCl, and Pb. In addition, the revised MACT floors and emission limits for $NO_X$ for large plants include emission levels based on combustor type. Revisions to the MACT floor that resulted in revisions to the selected MACT level of control for specific pollutants are discussed below.

While the final emission limits are somewhat different from proposal, the limits can be achieved using the same control technologies that were the basis of the proposed emission limits. The technology bases for large and small plants are summarized in table 3.

a. *MWC Acid Gases.* Based on the new information and test data received after proposal and the revised MACT floor analysis, the EPA revised the MACT limits for $SO_2$ and HCl for the final guidelines for large plants.

The revised $SO_2$ MACT floor for large plants is 31 ppmv. The final $SO_2$ emission limit for large plants, which was set at the MACT floor level of 35 ppmv at proposal, is 31 ppmv because of the change in the MACT floor at promulgation.

The MACT-based $SO_2$ limit of 80 ppmv for small plants has not changed from proposal; however, the $SO_2$ MACT floor for small plants is revised to 98 ppmv. Because the revised floor is more stringent than the proposal floor (the floor at proposal was 118 ppmv), the EPA's conclusion that acid gas controls will be needed to achieve the floor remains the same. In addition, the EPA's conclusion that a lower emission rate of 80 ppmv is achievable at minimal cost also remains the same. Therefore, the final $SO_2$ emission limit for small plants remains at 80 ppmv.

The revised HCl MACT floor for large plants is 31 ppmv. The final HCl emission limit for large plants, which was set at the MACT floor level of 35 ppmv at proposal, is 31 ppmv because of the change in the MACT floor at promulgation.

b. *MWC Metals.* Based on the new information and test data received after proposal and the revised MACT floor analysis, the Pb limit for large plants was revised for the final guidelines. The proposed Pb MACT emission level for large plants was 0.50 mg/dscm; however, the revised Pb MACT floor emission level for large plants is 0.49 mg/dscm. Therefore, the final Pb emission limit for large plants has been revised to 0.49 mg/dscm.

c. *MWC Organics.* The dioxin/furan emission limits for large and small plants were revised since proposal. The MACT floor for dioxins/furans for MWC's at large plants is 126 ng/dscm total mass. As documented in the preambles to these proposed guidelines (59 FR 48228, September 20, 1994) and the promulgated subpart Ca guidelines (56 FR 5514, February 11, 1991), in combination with GCP, SD/ESP systems can achieve dioxin/furan total mass emissions of 60 ng/dscm and SD/FF systems can achieve dioxin/furan total mass emissions of 30 ng/dscm. Therefore, the MACT floor of 126 ng/dscm can be achieved with either SD/ESP or SD/FF systems.

When determining the final MACT standard (which may be more stringent than the MACT floor), section 129(a)(2) requires the Administrator to consider certain factors, including the cost of achieving the emission reduction. In the Administrator's judgment, it would be prohibitively expensive and unreasonable to require existing MWC's with ESP's that can meet a dioxin/furan emission limit of 60 ng/dscm to retrofit an SD/FF in order to achieve an additional 30 ng/dscm reduction in emissions. For example, at a typical 1,400 Mg/day MWC plant already equipped with an SD/ESP, the capital cost to remove the ESP and retrofit a new FF would be about $14 million. This cost would be in addition to paying the remaining debt for a relatively new ESP (about $5 million including interest payments) and would result in a relatively small increase in control device efficiency.

For the final rule, the Administrator considered several regulatory options more stringent than the MACT floor; however, because of this high pollution control device retrofit cost, the Administrator decided to set separate MACT limits for MWC's with ESP-based control systems and MWC's with nonESP-based control systems. For MWC's with ESP-based control systems, the EPA selected a MACT level of 60 ng/dscm total mass, based on the performance of SD/ESP systems. For MWC's using or retrofitting nonESP-based control systems, the EPA selected a MACT level of 30 ng/dscm total mass, based on the performance of SD/FF systems. The number of MWC plants that will comply by using an SD/ESP will be limited (only about 10 percent of the MWC plants). The vast majority of MWC's are expected to use SD/FF systems to comply.

The MACT floor for dioxins/furans at small MWC plants is 1,500 ng/dscm total mass. As with large MWC plants, the final emission guidelines limit for dioxins/furans is more stringent than the MACT floor. The final guideline limit for dioxins/furans at small MWC plants is 125 ng/dscm total mass and is based on DSI/ESP technology.

The final MACT limit for Hg is based on use of activated carbon injection. Activated carbon injection technology used in combination with DSI/ESP, SD/ESP, or SD/FF technology is expected to result in supplemental dioxin/furan control, reducing dioxin/furan emissions from these control systems by more than 50 percent. The final MACT guideline levels for dioxins/furans for existing units at small and large plants do not consider supplemental dioxin/furan control from activated carbon injection because an insufficient amount of emissions data exist to adequately determine the performance level of activated carbon injection retrofitted to existing MWC air pollution control systems. Nonetheless, it is expected that the use of activated carbon injection will result in additional reduction of dioxins/furans to levels below the emission limits in the final guidelines.

As with the standards for new MWC's, the final guidelines include a provision that allows less frequent dioxin/furan testing if a plant is achieving a significantly lower level of dioxin/furan emissions (15 ng/dscm for MWC's at large plants and 30 ng/dscm for MWC's at small plants). This option will encourage optimal performance and minimal emissions. Refer to section IV.B.7 for a description of the alternative testing schedule.

Relative to the proposal, the optional TEQ format of the proposed dioxin/furan emission limits was removed in the final standards, as explained in section IV.B.2.c. Although not part of the dioxin/furan limit, the dioxin/furan total mass limits of 30 ng/dscm, 60 ng/dscm, and 125 ng/dscm are equal to about 0.3 to 0.8 ng/dscm TEQ, 0.7 to 1.4 ng/dscm TEQ, and 1.7 to 2.9 ng/dscm TEQ, respectively.

d. *Nitrogen Oxides.* After considering data submitted by commenters regarding requiring SNCR for MWC units at large plants where some could already achieve the MACT floor level without SNCR, the EPA changed the proposed $NO_X$ emission limit of 180 ppmv for all large plants. The $NO_X$ MACT floor was revised by calculating the MACT floor separately for each subcategory of combustor type, and the MACT limits are being promulgated at levels equivalent to the MACT floors for each combustor type. The final guideline MACT limits are: 200 ppmv for mass burn waterwall combustors; 250 ppmv for refuse-derived fuel combustors; 250 ppmv for mass burn rotary waterwall combustors; 240 ppmv for fluidized bed combustors; no limit for mass burn refractory combustors; and 200 ppmv for other combustors not listed above.

In addition, the EPA has revised the emission guidelines to allow States to include in their State plans options for averaging of emissions from units within a large MWC plant, and for trading emissions between MWC plants. The plant average emission limits for units being included in an emissions averaging plan within a plant are approximately 10 percent less than the MACT limits for each combustor type, as follows: 180 ppmv for mass burn waterwall combustors; 220 ppmv for mass burn rotary waterwall combustors; 230 ppmv for refuse-derived fuel combustors; 220 ppmv for fluidized bed combustors; and 180 ppmv for other combustor types (excluding mass burn rotary refractory combustors). Emissions trading between units at noncontiguous plants must be consistent with the requirements of the Open Market Trading Rule for Ozone Smog Precursors, proposed August 3, 1995 (60 FR 39668), as finally promulgated. Until the Open Market trading rule is finalized, it is not possible to reference the rule in the guidelines text. In the interim, the guideline text indicates $NO_X$ emissions trading must be approved by the Administrator prior to implementation. After the Open Market Trading Rule is finalized, it is preapproved for use under the guidelines.

e. *Fugitive Ash Emissions.* The emission limit for fugitive ash emissions under the final guidelines is visible emissions no more than 5 percent of the time from ash conveying and transfer systems at MWC's. An exemption for maintenance and repair activities has been added. These same changes were made to the standards for new sources. See the discussion of the standards in section IV.B.2.e for an explanation of the reasons for these changes.

3. Good Combustion Practices

The final CO guidelines include an additional category of combustor technology referred to as "spreader stoker coal/RDF mixed fuel-fired combustors," which is assigned the same CO limit and averaging time as the RDF stoker combustor category (200 ppmv, 24-hour averaging time). In the final guidelines, the category of combustors referred to in the proposal as "coal/RDF mixed fuel-fired combustors" was revised to "pulverized coal/RDF mixed fuel-fired combustors," and the CO limit and averaging time remains the same as proposed (150 ppmv, 4-hour averaging time). These same changes were made to the standards for new sources. See the discussion of the standards in section IV.B.3 for an explanation of the reasons for these changes.

4. Operator Training and Certification

As discussed in section IV.B.4 for the standards for new sources, the EPA has clarified the provisional certification requirements and revised the schedule for full certification of chief facility operators and shift supervisors to allow sufficient time to schedule exams. As stated in the proposal preamble, a State-approved ASME-equivalent certification program may be substituted for ASME certification.

For large plants, the final guidelines specify that a State plan must require chief facility operators and shift supervisors to obtain ASME provisional certification by 1 year after State plan approval or 6 months after startup, whichever is later. In addition, a State plan must require that, by the same date, these personnel obtain full certification or be scheduled with ASME to take the ASME full certification exam (instead of actually obtaining full certification within 1 year as proposed).

For small plants, the final guidelines specify that a State plan must require chief facility operators and shift supervisors to obtain ASME provisional certification by 18 months after State plan approval or 6 months after startup, whichever is later. In addition, a State plan must require that, by the same date, these personnel obtain full certification or be scheduled with ASME to take the ASME full certification exam (instead of actually obtaining full certification within 1 year as proposed).

5. Air Curtain Incinerators

No changes were made to the proposed guidelines for air curtain incinerators. As discussed in section V.B.1, the final guidelines do not cover combustion of clean wood; therefore, air curtain incinerators combusting only clean wood are not covered by the guidelines.

6. Compliance and Performance Testing

Under the final guidelines, State plans must specify that all plants are required to perform annual performance testing for dioxin/furan emissions. However, a provision for less frequent testing has been added to encourage plants to

optimize performance and achieve emission levels significantly lower than the dioxin/furan emission limits in the final guidelines. State plans may require that, to take advantage of this provision, existing MWC's must meet a dioxin/furan level of 15 ng/dscm (large plants) or 30 ng/dscm (small plants), for 2 consecutive years. Refer to the discussion on the standards for new MWC's under section IV.B.7 for a description of this reduced testing schedule.

7. Reporting and Recordkeeping Requirements and Compliance Schedules

Reporting requirements have been changed from quarterly to annual (semiannual if exceeding the emission limit for any pollutant) to reduce the economic burden on MWC's. Refer to section IV.B.8 for an explanation of the reasons for this change.

The EPA revised the proposed compliance schedule for large and small plants to allow more time for small plants to comply with the guidelines and to clarify the schedule for plants that select to close down operation rather than retrofit to comply with the guidelines. The final compliance schedule is as follows. For large MWC plants, State plans may allow three alternative compliance schedules: (1) Full compliance or closure within 1 year following approval of the State plan; (2) full compliance in 1 to 3 years following issuance of a revised construction or operation permit if a permit modification is required or 1 to 3 years following approval of the State plan if a permit modification is not required, provided the State plan includes measurable and enforceable incremental steps of progress toward compliance; or (3) closure in 1 to 3 years following approval of the State plan, provided the State plan includes a closure agreement. If a State plan allows the second or third scheduling options (i.e., more than 1 year), the State plan submitted to EPA must include post-1990 test data for dioxins/furans for all MWC units at large plants under the schedule. For small MWC plants, State plans must require full compliance or closure in up to 3 years following issuance of a revised construction or operation permit if a permit modification is required, or 3 years following approval of the State plan if a permit modification is not required.

*C. Impacts of the Guidelines*

The final guidelines can be achieved by designated facilities that utilize the same control technologies that were the basis for the proposed guidelines. The basis for the MACT guidelines selected at both proposal and promulgation is GCP/SD/ESP(or FF)/SNCR and carbon injection for large plants and GCP/DSI/ESP and carbon injection for small plants. Because the technology basis for the final guidelines is the same as at proposal, the impacts analysis presented at proposal has not been revised for the promulgated rule. Table 4 provides a brief summary of the air and cost impacts of the guidelines. The summary in table 4 provides impacts estimates based on two baseline scenarios: A pre-1989 baseline (control level prior to the 1991 subpart Ca guidelines) and a 1991 baseline (control level after the 1991 subpart Ca guidelines.) Refer to the preamble to the proposed guidelines (59 FR 48228) for a detailed summary of these air and control cost impacts, as well as a discussion of the water, solid waste, energy, and economic impacts of the guidelines.

TABLE 4.—IMPACTS OF THE 1991 SUBPART CA AND PROMULGATED SUBPART CB GUIDELINES

| Parameter | 1991 subpart Ca guidelines [a] | Promulgated 1995 subpart Cb guidelines [a] | Increment of promulgated 1995 subpart Cb guidelines over the 1991 subpart Ca guidelines [b] |
|---|---|---|---|
| Characteristics of Existing MWC's: | | | |
| Combustion capacity ($10^6$ Mg/yr) | 35.9 | 39.0 | 3.1 |
| Number of MWC plants | 158 | 179 | 21 |
| Cost (1990 Dollars): | | | |
| Capital cost ($10^6) | 888 | 2,100 | 1,212 |
| Annualized cost ($10^6/yr) | 168 | 445 | 277 |
| Average cost increase ($/Mg MSW combusted) | 6.40 | 13.60 | 7.20 |
| Annual Emissions Reduction (Mg/yr): | | | |
| $SO_2$ | 25,000 | 43,000 | 18,000 |
| HCl | 36,000 | 56,000 | 20,000 |
| PM | 1,100 | 3,100 | 2,000 |
| Cd | 2 | 5 | 3 |
| Pb | 30 | 83 | 53 |
| Hg | 11 | 47 | 36 |
| $NO_x$ | 0 | 19,000 | 19,000 |
| Total dioxins/furans (kg/yr) | 117 | 157 | 40 |

[a] The impacts are based on a pre-1989 baseline (i.e., a baseline prior to the effective date of the subpart Ca guidelines).
[b] The impacts are calculated by subtracting the impacts of the 1991 subpart Ca guidelines from the impacts of the promulgated 1995 subpart Cb guidelines (based on a pre-1989 baseline).

The national impacts estimates provided in table 4 and discussed in the proposal preamble represent EPA's estimate of the upper limit of impacts that would result from implementation of the guidelines. To the extent that any existing MWC's close rather than comply with the guidelines or switch to other disposal options that may cost less, the national costs will be lower and air emissions will be less.

A number of comments were received on the possible effects on EPA's costing analysis following the recent Supreme Court decision that "flow control" is unconstitutional. The EPA considered the effect of flow control on the financing of existing MWC's. In summary, the EPA finds that if MWC's raise tipping fees to cover the increased costs of these regulations, then the lack of "flow control" will likely result in a shift of some wastes to other disposal options. The combined impacts of no flow control and increased tipping fees on individual MWC's and municipalities are likely to be very

place-specific depending on the relative tipping fees of MWC's and other disposal options, transportation costs, and institutional factors. If tipping fees are not raised to offset emission control costs, then operators of MWC's will have to finance the costs of the regulations out of current revenues.

The EPA has identified several ways that State and local governments can guarantee a continued source of MSW for the MWC's and provide funds from the general revenue to support the operation of MWC facilities, accomplishing some of the outcomes that flow control can produce, including: (1) Government provision of collection services; (2) contractor provision of collection services under government contract; (3) franchising collection and hauling to designated facilities; (4) subsidizing facilities from the general revenues; and (5) supporting integrated solid waste management programs from the general revenue.

## VI. Administrative Requirements

This section addresses the following administrative requirements: Docket, Paperwork Reduction Act, Executive Orders 12866 and 12875, Unfunded Mandates Act, Regulatory Flexibility Act, and Clean Air Act Procedural Requirements.

### *A. Docket*

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The principal purposes of the docket are: (1) To allow interested parties to identify and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review, except for interagency review material. 42 U.S.C. § 7607(d)(7)(A). The docket number for this rulemaking is A–90–45. Docket No. A–89–08 also includes background information for this rulemaking that supported the proposal and promulgation of the subpart Ea standards and subpart Ca guidelines.

### *B. Paperwork Reduction Act*

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1506.5) and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136); 401 M St., S.W.; Washington, DC 20460 or by calling (202) 260–2740. This ICR document is also available on the EPA's TTN Clean Air Act Amendments electronic bulletin board. See the **SUPPLEMENTARY INFORMATION** section of this preamble for information on accessing EPA's TTN electronic bulletin board.

The information required to be collected by this rule is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of Section 114 of the Act. All information submitted as part of a report to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in Title 40, Chapter 1, part 2, subpart B—Confidentiality of Business Information (see 40 CFR 2; 41 FR 36902, September 1, 1976, amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The annual reporting and recordkeeping burden presented in this ICR document reflects only part of the burden imposed by this rule. The rest of the burden was presented to and approved by the OMB in an ICR document in 1991 for the subpart Ea NSPS promulgated in February 1991. The ICR document that accompanied the subpart Ea rulemaking summarized the reporting and recordkeeping requirements that MWC owners and operators of large MWC units are required to follow to demonstrate compliance with the 1991 NSPS. As explained elsewhere in this document, the Clean Air Act Amendments were passed by Congress in 1990, and they included section 129 that directs the Administrator to extend the NSPS to small MWC plants, as well as to include emission limits for additional pollutants and siting requirements. This ICR document for subpart Eb presents this additional burden imposed by section 129 of the Act, by summarizing the total annual burden on small plants (i.e., for the reporting and recordkeeping requirements associated with all pollutant emission limits and siting) and the additional annual burden on large MWC plants (i.e., only for requirements associated with Cd, Pb, Hg, and fugitive ash emission limits and siting).

The total annual reporting and recordkeeping burden summarized in this ICR document for this collection averaged over the first 3 years of NSPS application to new MWC's is estimated to be about 69,700 person hours per year. This would be the estimated annual burden for 64 respondents (i.e., MWC units). This is a worst-case burden estimate, as discussed under section IV.C. If fewer MWC units are constructed than have been projected, then the burden will be less than reported here. The average burden per respondent is about 1,100 person hours per year. The rule requires an initial one-time notification from each new MWC regarding all pollutant emission levels and siting and subsequent annual compliance reports regarding all pollutant emission levels. Additionally, if any of the pollutant emission limits are exceeded, respondents would be required to submit semi-annual reports. The rule includes continuous monitoring requirements for $SO_2$, opacity, CO, $CO_2$, $O_2$ and annual stack testing requirements for PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, and fugitive ash. Efforts were made to reduce the burden on small plants by allowing them to test emissions once every 3 years instead of annually if they demonstrate that they consistently meet the emissions requirements. This burden estimate includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Comments on the ICR document are requested, including the Agency's need for the information presented in this ICR document, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136); 401 M St. S.W.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. N.W.; Washington, DC 20503; marked "Attention: Desk Officer for EPA". Include the ICR number in any correspondence. Since the OMB is required to make a decision concerning the ICR between 30 and 60 days after December 19, 1995, a comment to OMB is best assured of having its full effect if OMB receives it by January 18, 1996. The EPA will publish a response to

OMB and public comments on the information collection requirements contained in this proposal in a subsequent Federal Register notice.

*C. Executive Order 12866*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant," and therefore, subject to OMB review and the requirements of the Executive Order. The Order defines "significant" regulatory action as one that is likely to lead to a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the promulgated standards for new sources will not be a "significant" rule because the annual effect on the economy is expected not to exceed $43 million over the cost of the existing subpart Ea standards. However, the EPA considers these promulgated standards to be "significant" because of their relationship to the guidelines for MWC's that are also being promulgated today. The final guidelines will cost $450 million per year or less based on a baseline prior to the effective date of the subpart Ea standards. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public docket for this rulemaking.

*D. Unfunded Mandates Act*

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a statement to accompany any rule where the estimated costs to State, local, or tribal governments, or to the private sector, will be $100 million or more in any 1 year. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule. Under section 205(a), the EPA generally must select the "least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule" and is consistent with statutory requirements. The EPA has complied with section 205 of the Unfunded Mandates Act, by promulgating a rule that is the most cost-effective alternative for regulation of these sources that meets the statutory requirements under the Clean Air Act. For Hg and dioxins/furans, the EPA adopted standards that are more stringent than the MACT floor level of control. In the case of dioxins/furans, the EPA concluded that a standard more stringent than the MACT floor can be achieved at little or no cost, and thus represents the most cost-effective control. In the case of Hg, the MACT floor emissions level is equal to current uncontrolled levels. However, the EPA concluded, after considering the requisite factors in section 129(a)(2), that an uncontrolled floor level could not be justified under the Clean Air Act and that a more stringent emissions standard based on the use of carbon injection as an add-on control would be cost-effective. The EPA was unable in this rulemaking to identify any alternatives other than carbon injection for control of Hg emissions. To the extent that section 205(a) of the Unfunded Mandates Reform Act (UMRA) may be read to have the EPA consider a less stringent level of Hg control, the EPA concluded that such an alternative would be "inconsistent with law" within the meaning of section 205(b)(2) of the UMRA. Accordingly, the alternative selected for Hg is the most cost-effective one available under these circumstances.

The unfunded mandates statement under section 202 must include: (1) A citation of the statutory authority under which the rule is proposed, (2) an assessment of the costs and benefits of the rule including the effect of the mandate on health, safety and the environment, and the Federal resources available to defray the costs, (3) where feasible, estimates of future compliance costs and disproportionate impacts upon particular geographic or social segments of the nation or industry, (4) where relevant, an estimate of the effect on the national economy, and (5) a description of the EPA's consultation with State, local, and tribal officials.

Since this rule is estimated to impose costs to the private sector and government entities in excess of $100 million, the EPA has prepared the following statement with respect to these impacts.

1. Statutory Authority

The statutory authority for this rulemaking, sections 111 and 129 of the Clean Air Act, is fully discussed in section II of this preamble. The rule establishes emission guidelines for existing MWC's and standards of performance for new MWC's.

Section 129(a)(2) requires the Administrator to promulgate standards for new solid waste incinerator units and emission guidelines for existing units that "reflect the maximum degree of reduction in emissions of air pollutants listed under section (a)(4) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air-quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category. The Administrator may distinguish among classes, types (including mass-burn, refuse-derived fuel, modular and other types of units), and sizes of units within a category in establishing such standards * * *" 42 U.S.C § 7429(a)(2) (emphasis added). This is commonly referred to as maximum achievable control technology, or MACT. Section 129(a)(2) further defines a minimum level of stringency that can be considered for MACT standards—commonly referred to as the MACT floor—which for new units, is the level of control achieved by the best controlled similar unit, and for existing units, is the level of control achieved by the average of the best performing 12 percent of units in the category. *Id.*

In the final rule, the Administrator determined for new MWC's that MACT for all pollutants was equivalent to the pollutants' MACT floor levels—i.e., the MACT floor levels reflect the maximum achievable, cost-effective reduction in emissions of the air pollutants specified in section 129(a)(4) of the Clean Air Act. The promulgated MACT levels reflect the performance of emission control technology that is in commercial use at the best controlled similar source (i.e., an MWC equipped with an SD/FF system, carbon injection, and SNCR, in combination with GCP's). The September 20, 1994 proposed standards were more stringent than the MACT floor levels because the proposed levels were based on carbon injection technology, which was not in commercial use at the time of proposal. Since proposal, a dozen MWC units equipped with carbon injection technology have initiated operation; thus, the best controlled similar unit in the final rule includes carbon injection (i.e., basis for the MACT floor).

For existing MWC's, some of the emission limits included in the emission guidelines promulgated today are the same as the final MACT floor levels. For several pollutants, however, the Administrator decided, consistent with section 129(a)(2) after considering costs and non-air-quality health and environmental impacts and energy requirements, to set MACT standards more stringent than the MACT floor, since more stringent levels could be achieved at either no additional cost, or minimal costs. The MACT floor levels for acid gases and PM are stringent enough for existing units at both small and large plants that they require an acid gas/PM control system. Since an acid gas/PM control system also controls emissions of all regulated pollutants except Hg and $NO_x$, establishing emission limits for acid gases and PM effectively establishes emission limits for the other pollutants (except Hg and $NO_x$). The cost to comply with the selected emission limits relative to the cost of the acid gas/PM control system are minimal.

For example, the same acid gas/PM control system that owners and operators of MWC's need to meet the MACT emissions guideline levels for $SO_2$ and PM also controls dioxins/furans to levels more stringent than the dioxin/furan MACT floor level. Thus, the Administrator determined that the final dioxin/furan emission guidelines may be achieved at no additional control costs. In the final rule, for MWC's at large plants, the Administrator distinguished between the dioxin/furan emission guidelines for MWC's equipped with ESP-based control systems and MWC's equipped with nonESP-based control systems. In the Administrator's judgment, it would be prohibitively expensive and unreasonable to require existing ESP's that can meet a limit of 60 ng/dscm to retrofit an SD/FF in order to achieve additional reduction in emissions beyond the MACT floor (see the proposal preamble, 50 FR 48228, September 20, 1994, for a more detailed discussion). For the final rule, the Administrator considered several regulatory options more stringent than the MACT floor; however, because of the high cost of pollution control device retrofit, the Administrator determined that MACT for dioxins/furans emitted from MWC's with ESP-based control systems is 60 ng/dscm, and MACT for dioxins/furans emitted from MWC's with SD/FF systems is 30 ng/dscm.

The MACT floor for Hg is 0.36 mg/dscm, and MACT for Hg is more stringent than the MACT floor at a level of 0.080 mg/dscm. To achieve the Hg emission limit in the emission guidelines, carbon injection will be required (this exceeds MACT floor requirements). Because of the toxicity and bioaccumulation potential of Hg, the Administrator considered the small cost of adding Hg control to be cost-effective. The cost of Hg control is about $0.25 to $0.35 per gram Hg removed ($250,000 to $350,000 per Mg), which translates to approximately $0.05 to $0.07 per month for a household served by an MWC.

2. Social Costs and Benefits

This assessment of the cost and benefits to State, local, and tribal governments of the guidelines is based on EPA's "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Solid Waste Combustors." Measuring the social costs of the guidelines requires identification of the affected entities by ownership (public or private), consideration of regulatory alternatives, calculation of the regulatory compliance costs for each affected entity, and assessment of the market implications of the additional pollution control costs. Calculating the social benefits of the guidelines requires estimating the anticipated reductions in emissions at MWC's due to regulation, identification of the harmful effects of exposure to MWC emissions, and valuing the expected reductions in these damages to society.

a. *Affected Entities.* For 1996, the base year of the analysis, there are 179 MWC's in the population of operational facilities affected by the guidelines. Of this total, 100 are publicly owned and operated (i.e., facilities owned by State or local governments). There are no MWC's currently owned, or expected to be owned in the near future, by tribal governments, so there is no impact on tribal governments. The remaining 79 MWC's are privately owned and operated. The EPA developed 16 model plants to characterize the existing facilities based on the technologies used for combustion and air pollution control at baseline. Table 5 shows the distribution of publicly and privately owned MWC's and the estimated MSW volumes managed by the existing MWC model plants. Of the 100 publicly owned and operated MWC plants, 38 plants are located in communities with a population less than 50,000, 11 plants are located in communities with a population between 50,000 and 100,000, 21 plants are located in communities with a population between 100,000 and 250,000, and 30 plants are located in communities with a population greater than 250,000. A detailed description of the model plants used to characterize operational MWC's is presented in table 3–4 of the "Economic Impact Analysis of Proposed Emissions Standards and Guidelines for Municipal Waste Combustors" (EPA–450/3–91–029, 1994).

TABLE 5.—SUMMARY OF TOTAL MSW THROUGHPUT AT PUBLIC AND PRIVATE MWC'S BY MODEL PLANT

| Model plant[a] | Ownership | | | | |
|---|---|---|---|---|---|
| | Public throughput (Mg/yr) | Public share (%) | Private throughput (Mg/yr) | Private share (%) | Total throughput (Mg/yr) |
| 1 | 813,244 | 100.0 | 0 | 0.0 | 813,244 |
| 2 | 1,158,112 | 81.9 | 256,034 | 18.1 | 1,414,146 |
| 3 | 1,397,867 | 100.0 | 0 | 0.0 | 1,397,867 |
| 4 | 1,914,896 | 19.3 | 7,995,967 | 80.7 | 9,910,863 |
| 5 | 3,956,410 | 61.1 | 2,523,329 | 38.9 | 6,479,739 |
| 6 | 374,566 | 56.7 | 286,119 | 43.3 | 660,685 |
| 7 | 1,008,603 | 57.5 | 746,477 | 42.5 | 1,755,080 |
| 8 | 1,547,612 | 66.5 | 777,981 | 33.5 | 2,325,593 |
| 9 | 400,346 | 73.3 | 145,661 | 26.7 | 546,007 |
| 10 | 425,552 | 82.5 | 90,472 | 17.5 | 516,024 |
| 11 | 166,082 | 42.0 | 228,966 | 58.0 | 395,048 |
| 12 | 284,596 | 72.6 | 107,219 | 27.4 | 391,815 |
| 14 | 343,596 | 48.4 | 366,785 | 51.6 | 710,381 |
| 15 | 937,280 | 29.2 | 2,277,088 | 70.8 | 3,214,368 |

TABLE 5.—SUMMARY OF TOTAL MSW THROUGHPUT AT PUBLIC AND PRIVATE MWC'S BY MODEL PLANT—Continued

| Model plant[a] | Ownership | | | | |
|---|---|---|---|---|---|
| | Public throughput (Mg/yr) | Public share (%) | Private throughput (Mg/yr) | Private share (%) | Total throughput (Mg/yr) |
| 16 | 58,462 | 6.7 | 819,320 | 93.3 | 877,782 |
| 17 | 745,501 | 52.9 | 662,673 | 47.1 | 1,408,174 |
| Total: | 15,078,823 | 45.9 | 17,737,993 | 54.1 | 32,816,816 |

[a] There is no model plant that matches model plant #13 in the Economic Impact Analysis (EPA–450/3–91–029, March 1994).

b. *Regulatory Alternatives Considered.* The two broad categories of regulatory standards available include design standards and emission standards. Design standards specify the type of control equipment polluters must install, whereas emission standards specify the maximum quantity of a given pollutant that any one polluter may release.

Design standards offer the least flexible approach considered in this analysis. Municipal waste combustors would have to install the specified control equipment regardless of the additional emission reductions achieved or the relative cost of alternative means of emission reductions.

Emission standards allow greater flexibility in the methods used to reduce emissions. Municipal waste combustors are free to meet the emission limit in the manner that is least costly to them. Consequently, for a given level of emission reductions, emission standards are generally less costly than design standards. Furthermore, emission standards give MWC's an incentive to develop more effective means of controlling emissions. In addition, the Act requires the Administrator to promulgate emission standards unless such standards are not feasible. See 42 U.S.C. §§ 7411(h) and 7429(a)(1). Since emission standards for MWC's are feasible, the EPA is barred from promulgating design standards for MWC's.

Even though emission standards generally result in a more efficient allocation of costs than design standards, uniform emission standards can be more costly than necessary. Uniform emission standards require the same level of emission control of every discharger. Because marginal control costs differ for plants of different sizes, different technologies, different levels of product recovery (i.e., in the chemical industry), and different levels of baseline control, an effective solution can be reached if standards are carefully tailored to the special characteristics of each discharger. This type of standard is referred to as a differentiated standard.

In formulating its MWC regulatory alternatives, EPA selected candidate regulatory alternatives that contain control limits for MWC's differentiated by MWC size classification. Large facilities are defined as MWC plants with aggregate plant capacities over 225 Mg/day. Small facilities are defined as MWC plants with aggregate plant capacities between 35 and 225 Mg/day. Plants with aggregate plant capacities less than 35 Mg/day are not covered by today's rulemaking. The lower size threshold of 35 Mg/day aggregate plant capacity for controlling MWC emissions under today's rulemaking was selected after reviewing the population distributions of MWI's and MWC's. Most incinerators at medical waste facilities are smaller incinerators that fire segregated medical waste with general hospital discards (MSW), and these incinerators would have the potential to be covered by today's rulemaking. To avoid overlap with the upcoming MWI rulemaking, this rulemaking includes the lower size cutoff of 35 Mg/day plant capacity and MWC plants with aggregate capacities less than or equal to 35 Mg/day will be addressed under a separate rulemaking. With a lower size cutoff of 35 Mg/day, today's promulgated MWC rulemaking will cover over 99 percent of the total U.S. MWC combustion capacity but will exclude 97 percent of the total MWI combustion capacity.

The regulatory alternatives for the two selected size classifications did not specify a particular control technology; rather, they specified emission limits that facilities would be required to meet. Current practice indicates that the emission guideline limits for acid gases, PM, and metals will likely be met with one of six different types of control technologies, depending on the applicable emission limits. Table 6 presents acid gas, PM, and metals control technologies listed in order of increasing efficiency.

TABLE 6.—CONTROL TECHNOLOGIES ASSOCIATED WITH ACID GAS, PARTICULATE MATTER, AND METALS CONTROL

| |
|---|
| GCP + ESP |
| GCP + DSI/ESP |
| GCP + DSI/FF |
| GCP + SD/ESP |
| GCP + SD/FF |

In designing MWC regulatory alternatives, the EPA considered emission limits consistent with the combinations of the acid gas control technologies listed in table 6. Small plants may be required to meet one control limit and large plants another under a given regulatory alternative. Under the final guidelines, more stringent control requirements are in fact applicable to large plants than to small plants. This was done in an attempt to equalize the cost impact on small and large plants. Under the final guidelines the unit cost for air pollution control retrofit for large plants would be about $16 per Mg of waste combusted. For similar small plants the retrofit costs would be about $17 per Mg of waste combusted. Table 7 shows the control technologies evaluated for the guidelines regulatory alternatives under two compliance scenarios for acid gas, PM, and metals control. The control technology bases identified in this table are not intended to imply a design standard. Rather, the technology bases are identified only for the purpose of estimating costs and emission reductions.

TABLE 7.—EMISSION GUIDELINES FOR EXISTING MWC'S: CONTROL TECHNOLOGY BASES USED TO ESTIMATE THE IMPACTS OF THE REGULATORY ALTERNATIVES[a] [b]

| Regulatory alternative, and baseline APCD | Size Classification (Mg MSW/day) | |
|---|---|---|
| | Small (35 to 225) | Large (over 225) |
| Reg. Alt. I: | | |
| No control | GCP+ESP | GCP+SD/FF+CI+SNCR |
| ESP (low) | GCP+ESP | GCP+SD/ESP(m)+CI+SNCR |
| SD/ESP | GCP+SD/ESP | GCP+SD/ESP(m)+CI+SNCR |
| SD/FF | GCP+SD/FF | GCP+SD/FF+CI+SNCR |
| Reg. Alt. II–A: | | |
| No control | GCP+DSI/FF+CI | GCP+SD/FF+CI+SNCR |
| ESP (low) | GCP+DSI/ESP+CI | GCP+SD/ESP(m)+CI+SNCR |
| SD/ESP | GCP+SD/ESP+CI | GCP+SD/ESP(m)+CI+SNCR |
| SD/FF | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| Reg. Alt. II–B: | | |
| No control | GCP+DSI/FF+CI | GCP+SD/FF+CI+SNCR |
| ESP (low) | GCP+DSI/ESP+CI | GCP+SD/FF+CI+SNCR |
| SD/ESP | GCP+SD/ESP+CI | GCP+SD/ESP(m)+CI+SNCR |
| SD/FF | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| Reg. Alt. III; | | |
| No control | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| ESP (low) | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| SD/ESP | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| SD/FF | GCP+SD/FF+CI | GCP+SD/FF+CI+SNCR |
| MACT Floor: | | |
| No control | GCP+DSI/FF | GCP+SD/FF+SNCR |
| ESP (low) | GCP+DSI/ESP | GCP+SD/ESP(M)+SNCR |
| SD/ESP | GCP+SD/ESP | GCP+SD/ESP(m)+SNCR |
| SD/FF | GCP+SD/FF | GCP+SD/FF+SNCR |

Source: This table is an extract of table 4–2 of the document entitled "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Waste Combustors," EPA–450/3–91–029, March 1994. See **SUPPLEMENTARY INFORMATION** for information on obtaining this document.

[a] The MWC regulation does not mandate a specific type of control equipment. The MWC owner/operator may use any control equipment that meets the emission standards. The control technologies are the projected compliance strategies used as the basis for computing costs. If the MWC has equipment that is meeting or exceeding the control requirements, no additional costs are incurred.

[b] CI=carbon injection.

TABLE 7A.—EMISSION GUIDELINES FOR EXISTING MWC'S: EMISSION REDUCTIONS AND ANNUALIZED COSTS OF THE REGULATORY ALTERNATIVES[a]

| Pollutant category (Mg/yr)/annualized cost ($1990 $10^6$/yr) | Regulatory alternative | | | | |
|---|---|---|---|---|---|
| | Reg. alt. I | Reg. alt. II–A | Reg. alt. II–B | Reg. alt. III | Mact floor |
| $SO_2$ | 41,200 | 43,300 | 43,300 | 45,000 | 43,300 |
| HCl | 51,600 | 56,300 | 56,300 | 57,300 | 56,300 |
| PM | 3,070 | 3,070 | 3,070 | 3,240 | 3,070 |
| Pb | 74.8 | 74.8 | 91.1 | 102 | 74.8 |
| Cd | 5.24 | 5.24 | 5.56 | 6.02 | 5.24 |
| Hg | 44.7 | 47.5 | 47.5 | 47.5 | 0 |
| $NO_X$ | 8,680 | 8,680 | 8,690 | 8,690 | 8,680 |
| CO | 19,300 | 19,300 | 19,300 | 19,300 | 19,300 |
| Dioxins/furans (total mass) | 0.154 | 0.156 | 0.157 | 0.158 | [b]0.153 |

TABLE 7A.—EMISSION GUIDELINES FOR EXISTING MWC'S: EMISSION REDUCTIONS AND ANNUALIZED COSTS OF THE REGULATORY ALTERNATIVES [a]—Continued

| Pollutant category (Mg/yr)/annualized cost ($1990 $10^6$/yr) | Regulatory alternative | | | | |
|---|---|---|---|---|---|
| | Reg. alt. I | Reg. alt. II–A | Reg. alt. II–B | Reg. alt. III | Mact floor |
| Annualized cost ($1990 $10^6$/yr) | 412 | 443 | 448 | 487 | 425 |

Source: This table is an extract of tables 5–14 and 5–21 of the document entitled "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Waste Combustors," EPA–450/3–91–029, March 1994. See **SUPPLEMENTARY INFORMATION** for information on obtaining this document.

[a] The MWC regulation does not mandate a specific type of control equipment. The MWC owner/operator may use any control equipment that meets the emission standards. The control technologies are the projected compliance strategies used as the basis for computing costs. If the MWC has equipment that is meeting or exceeding the control requirements, no additional costs are incurred.

[b] The MACT floor is regulatory alternative II–A without carbon injection for mercury and dioxin/furan control. The majority of the dioxin/furan emission control is achieved by acid gas controls included in alternative II–A and the floor. It is assumed that adding mercury control (carbon injection) to acid gas control reduces dioxin/furan emissions by at least an additional 50 percent. The dioxin/furan emission reduction estimate for the MACT floor is not provided in the "Economic Impacts Analysis."

The regulatory alternatives represent alternative levels of control considered by the EPA, whereas the compliance scenarios represent potential alternative responses by the MWC owners and operators to the emission requirements. Generally speaking, the EPA assumed that MWC owners and operators will choose the minimum-cost control technology that will meet the emission requirements. However, where there is uncertainty regarding the actual emission limits that a particular control technology will achieve in practice, owners may choose a more conservative (and potentially more costly) compliance strategy to reduce the risk of noncompliance. A conservative investment decision is particularly likely when the investment decision affects the facility's ability to remain in operation (e.g., noncompliance results in plant shutdown), is a long-term decision, or involves a significant capital outlay. Consequently, we evaluate two compliance scenarios for meeting the acid gas, PM, and metals control requirements for existing plants subject to guidelines.

A more detailed discussion of the regulatory alternatives EPA considered may be found in the "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Waste Combustors," EPA–450/3–91–029, March 1994 (see **SUPPLEMENTARY INFORMATION** for information on obtaining this document). Control alternatives were also developed for $NO_X$ control and Hg control. Discussion of these alternatives can be found in the following memos that may be obtained from the EPA's Air Docket, as specified in the **SUPPLEMENTARY INFORMATION** section of this preamble: (1) "Update Report on Mercury Control Technologies for Municipal Waste Combustors" prepared by K. Nebel and D. White, Radian Corporation, for W. Stevenson, U.S. Environmental Protection Agency, July 1993; (2) "$NO_X$ Control on Existing MWC's," prepared by E. Soderberg et al., Radian Corporation, for W. Stevenson, U.S. Environmental Protection Agency, August 23, 1991; (3) "Wet Scrubbing Systems Performance and Cost," prepared by K. Nebel, et al., Radian Corporation, for W. Stevenson, U.S. Environmental Protection Agency, June 22, 1994; and (4) "A Summary of Mercury Emissions and Applicable Control Technologies for Municipal Waste Combustors," prepared by K. Nebel and D. White, Radian Corporation, for W. Stevenson, U.S. Environmental Protection Agency, September 1991.

c. *Social Costs.* The regulatory compliance costs of reducing air emissions from MWC's include the total and annualized capital costs; operating and maintenance costs; monitoring, inspection, recordkeeping, and reporting costs; and total annual costs. The annualized capital cost is calculated using a 4-percent discount rate for publicly-owned MWC's and an 8-percent discount rate for privately-owned MWC's. The total annual cost is calculated as the sum of the annualized capital cost; operating and maintenance costs; and the monitoring, inspection, recordkeeping, and reporting costs. There are no Federal funds available to assist State and local governments in meeting these costs.

Table 8 provides the estimated compliance costs for the final regulations and their distribution across public and private MWC's. As shown, the national annual compliance costs for existing MWC's total $405.5 million, with publicly-owned facilities incurring $229.9 million. This total both represents 56.7 percent of the estimated national compliance costs and forms the basis for allocating benefits to publicly-owned MWC's. (The analysis has assumed that benefits are linear with emission reductions). The level of compliance costs depends not only on the absolute number of facilities, but also on the baseline level of pollution control. It is assumed that higher compliance costs are associated with higher emission reductions and are, thus, appropriate for allocating the benefits associated with the reduced emissions.

TABLE 8.—SUMMARY OF REGULATORY COMPLIANCE COSTS FOR EXISTING MWC'S BY OWNERSHIP ($1990, $10^3$)

| Ownership category | Annual capital costs | Annual operating and maintenance costs | Annual MIRR costs [a] | Total annual costs |
|---|---|---|---|---|
| Public | 67,625 | 154,163 | 8,092 | 229,881 |
| Private | 83,936 | 87,161 | 4,575 | 175,672 |
| Total | 151,561 | 241,325 | 12,667 | 405,553 |

[a] MIRR=Monitoring, inspection, reporting, and recordkeeping.

The analysis assumes that the entire increase in costs of combustion services for both public and private entities will be passed through to MWC customers in the form of increases in the tipping fee charged by MWC's. As shown in table 9, the estimated increases in the average tipping fee for publicly-owned MWC's are significant and range from 36 to 59 percent. The range for privately-owned MWC's is 41 to 65 percent.

TABLE 9.—AVERAGE TIPPING FEE INCREASES FOR EXISTING MWC'S BY OWNERSHIP

| Ownership | Small MWC plants (35 to 225 Mg/day MSW) (percent change) | Large MWC plants[a] (over 225 Mg/day MSW) (percent change) |
|---|---|---|
| Public | 59 | 36 |
| Private | 65 | 41 |

[a] Fee increases are computed using the average cost per megagram of MSW reported in tables 5–10 and 5–11 of the EPA's "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Solid Waste Combustors," (EPA–450/3–91–029) and an average tipping fee of $57/Mg of MSW. The average tipping fee is based on the 1993 average tipping fee for MWC's reported in *Waste Age* (Berenyi & Gould, 1993) converted to 1990 dollars.

Section 7.3.1 of the EPA's economic impact analysis (EPA–450/3–91–029) provides a distributional analysis of the impacts on governmental entities with respect to their ability to finance the regulatory compliance capital through revenue bonds. A community's ability to finance the regulatory compliance capital through revenue bonds is estimated by comparing the estimated average annual cost per household to the average annual household income for the community. If the cost per household exceeds one percent of average annual household income, then the community is assumed to have potential difficulty issuing revenue bonds. Of the estimated 100 governmental entities subject to the guidelines, no governmental entities with a population above 50,000 are projected to have difficulty issuing revenue bonds as a result of the regulation on existing sources. Overall, 3 of the 100 governmental entities (all 3 of which have population below 50,000) are projected to have difficulty issuing such bonds.

Without market adjustments, the social costs of the guidelines should be equivalent to the national compliance costs shown in table 8. However, in this analysis, the social costs differ, both because the total capital costs for both public and private MWC's were discounted at the social rate equal to 7 percent, and because of tax differences. Table 10 shows the estimated social cost of the regulations and the distribution across public and private MWC's. The estimated annual social cost of the guidelines is $443 million of which 56.7 percent, or $251.1 million, is attributed to publicly-owned MWC's. This estimate of social cost is greater than the national compliance costs because the total capital costs for publicly-owned MWC's is discounted at the social rate of 7 percent, as opposed to the 4 percent rate used to compute the national compliance costs.

TABLE 10.—SUMMARY OF ESTIMATED ANNUAL SOCIAL COST BY OWNERSHIP ($1990)

| Ownership category | Total social costs ($10$^3$ per year) | Share (percent) |
|---|---|---|
| Public | 251,107 | 56.7 |
| Private | 191,893 | 43.3 |
| Total | 443,000 | 100.0 |

Table 10A provides typical costs of air pollution control retrofits for existing MWC's. The costs shown in table 10A are for 17 model existing plants.

TABLE 10A.—Typical Cost of Air Pollution Control Retrofit for Existing MWC'S

| Plant size (Mg/day) | MWC type | Costs ($1990x10$^6$) | | Model plant number |
|---|---|---|---|---|
| | | Capital | Annual | |
| 45 | MOD/SA | 2 | 0.5 | 10 |
| 136 | MOD/SA | 3 | 10.5 | 9 |
| 181 | MOD/EA | 3 | 0.4 | 11 |
| 181 | MB/WW | 5 | 0.9 | 6 |
| 454 | MB/RWW | 13 | 1.6 | 12 |
| 980 | MB/WW | 25 | 3.2 | 5 |
| 2,041 | MB/WW | 46 | 5.0 | 4 |
| 181 | MB/WW | [a]5 | 0.8 | 14 |
| 454 | MB/RWW | [a]13 | 1.6 | 17 |
| 544 | RDF | 28 | 2.3 | 8 |
| 1,814 | RDF | 64 | 4.8 | 7 |
| 1,814 | RDF | [a]33 | 4.4 | 15 |
| 544 | RDF | [a]17 | 2.0 | 16 |
| 218 | MB/REF | 8 | 0.9 | 2 |
| 680 | MB/REF | 39 | 2.3 | 1 |
| 816 | MB/REF | 35 | 4.1 | 3 |

Note: See table 5–1 of the "Economic Impacts Analysis for Proposed Emission Standards and Guidelines for Municipal Waste Combustors" (EPA–450/3–91–029) for more information.

[a] These model plants are assumed to be relatively new units that originally incorporated good combustion in their design and, therefore, do not need to retrofit good combustion to comply with the guidelines.

d. *Social Benefits.* Society will benefit from the proposed guidelines through the reduction of emissions of dioxins/furans, Cd, Pb, Hg, PM, HCl, $SO_2$, and $NO_X$. These pollutant categories are emitted by various types of sources, including MWC's. The level of pollutant emissions and health effects vary among types of sources, and total national emissions of these pollutants has been shown to have the health effects listed in table 11.

TABLE 11.—HEALTH AND OTHER EFFECTS

| Pollutant category | Health and other effects |
|---|---|
| Organics ..... | • Mortality, morbidity.<br>• Carcinogenicity. |
| Metals ..... | • Retardation and brain damage.<br>• Hypertension.<br>• Central nervous system injury.<br>• Renal dysfunction. |
| Acid gases ..... | • Materials damage.<br>• Dental erosion.<br>• Acid rain.<br>• Mortality, morbidity.<br>• Respiratory tract problems, permanent harm to lung.<br>• Soiling and materials damage.<br>• Reduced agricultural yield. |
| Particulate matter. | • Ozone formation.<br>• Mortality, morbidity.<br>• Eye and throat irritation, bronchitis, lung damage.<br>• Impaired visibility.<br>• Soiling and materials damage. |

Because of limitations on data on the concentration-response function and valuation of these functions, benefits have not been quantified for all pollutants. Benefits have been quantified only for emissions of $SO_2$ and PM. Benefits have not been quantified for dioxins/furans, Cd, Pb, Hg, HCl or $NO_X$ emission control. Benefits to the public and environment will result from the control of these hazardous air pollutants (HAP's) and criteria pollutants. For the HAP's, dioxin/furan compounds have been associated with chloracne, reproductive/developmental effects, immune system toxicity, and cancer (probable human carcinogen). Particulate-associated metals including Pb and Cd are toxic and can cause effects such as mucous membrane irritation, gastrointestinal effects, nervous system disorders, skin irritation, and reproductive and developmental disorders. In regard to volatile metals, Hg in all forms may be characterized as quite toxic with each form exhibiting different health effects, including gastrointestinal and respiratory tract disturbances, central nervous system effects, and developmental effects. Additionally, HCl is corrosive and effects the eyes, skin, and mucus membranes, and dermatitis has been reported from long-term exposure.

Table 12 provides the estimated social benefits associated with reductions in PM and $SO_2$ emissions from MWC's and their distribution across public and private MWC's. The estimated social benefit of reduced PM and $SO_2$ emissions is $106 million with $60.3 million being attributed to reductions at publicly-owned MWC facilities. These benefits would be experienced annually by the residents of these municipalities. Proper allocation of these benefits would be based on the expected emission reductions at public and private MWC's. However, due to lack of data at the model plant level, these benefits are allocated across public and private MWC's in the same proportion as the estimated national compliance costs (i.e., 56.7 percent for public and 43.3 percent for private).

TABLE 12.—SOCIAL BENEFIT ESTIMATES FOR $SO_2$ and PM Emission Reductions by Ownership ($1990)

| Ownership category | Social benefits ($10$^3$ per year)[a,b] | | |
|---|---|---|---|
| | PM | $SO_2$ | Total |
| Public .... | 30,779 | 29,475 | 60,254 |
| Private ... | 23,521 | 22,525 | 46,046 |

TABLE 12.—SOCIAL BENEFIT ESTIMATES FOR $SO_2$ and PM Emission Reductions by Ownership ($1990)—Continued

| Ownership category | Social benefits ($10$^3$ per year)[a,b] | | |
|---|---|---|---|
| | PM | $SO_2$ | Total |
| Total ..... | 54,300 | 52,000 | 106,300 |

[a] Benefit estimates are $1,200 per Mg of $SO_2$ reduced and $17,700 per Mg of PM reduced. (This estimate is derived valuing all mortalities at $4.4 million per life saved. This approach does not consider the length of the changes in longevity resulting from PM exposure). Social benefits attributable to public and private MWC's are proportionate to their share of the total annual costs.

[b] Does not include benefit credits for dioxins/furans, Cd, and Hg control.

Table 13 presents a comparison of the estimated social costs and benefits of the guidelines. Unfortunately, because benefit estimates are not computed for all pollutants, the social benefit provided in table 13 is a partial estimate. Because of this fact, the net benefits (i.e., benefits minus costs) shown in table 13 cannot be used to reach conclusions regarding the total net benefits of the rule for existing sources.

TABLE 13.—SOCIAL COSTS AND PARTIAL SOCIAL BENEFITS FROM REDUCING EMISSIONS AT MWC'S BY OWNERSHIP ($1990, $10^3$ PER YEAR)

| Ownership category | Total social costs | Partial social benefits |
|---|---|---|
| Public ..... | 251,107 | 60,254 |
| Private ..... | 191,893 | 46,046 |
| Total ..... | 443,000 | 106,300 |

3. Effects on the National Economy

The Unfunded Mandates Act requires that the EPA estimate "the effect" of this rule

"on the national economy, such as the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services, if and to the extent that the EPA in its sole discretion determines that

accurate estimates are reasonably feasible and that such effect is relevant and material."

As stated in the Unfunded Mandates Act, such macroeconomic effects tend to be measurable, in nationwide econometric models, only if the economic impact of the regulation reaches 0.25 to 0.5 percent of gross domestic product (in the range of $1.5 billion to $3 billion). A regulation with a smaller aggregate effect is highly unlikely to have any measurable impact in macroeconomic terms unless it is highly focused on a particular geographic region or economic sector. For this reason, no estimate of this rule's effect on the national economy has been conducted.

4. Consultation with Government Officials

The Unfunded Mandates Act requires that the EPA describe the extent of the EPA's consultation with affected State, local, and tribal officials, summarize the officials' comments or concerns, and summarize the EPA's response to those comments or concerns. In addition, section 203 of the Clean Air Act requires that the EPA develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a proposal. Throughout the development of these rules (pre-proposal through pre-promulgation phases), the EPA consulted with representatives of affected State and local governments, including the U.S. Conference of Mayors, the National League of Cities, the National Association of Counties, the Solid Waste Association of North America, and the Municipal Waste Management Association, to inform them of the proposed rule and determine their concerns. (The EPA also consulted with representatives from other entities affected by the proposed rule, such as the Integrated Waste Services Association, the Sierra Club, and the Natural Resources Defense Council.)

As part of EPA's consultation efforts in this rulemaking, the EPA mailed a copy of the regulatory summary (FACT SHEET) for the September 20, 1994 proposed MWC standards and guidelines to every elected official in an area with either an operating MWC, an MWC under construction, or a planned MWC. (The EPA also mailed copies of the summary to all owners and operators of these MWC's.) This mailout exceeded 400 informational packages. Since approximately half of the MWC's are owned and/or operated by municipalities, with this effort, the EPA was able to ensure that every affected State and local government was made aware of the proposed rule and had the necessary information to provide comment.

In addition, over a 3-month period, EPA staff consulted with State and local government representatives to discuss their comments regarding the final draft package. Letters were received during this time period from the U.S. Conference Mayors and the Integrated Waste Services Association (see docket A–90–45, items IV–D–44 and IV-D–85, respectively), which raised various concerns; however, in subsequent meetings, the EPA learned that State and local officials, as well as industry representatives, were mainly concerned with the following sections of the final draft emission guidelines: (1) The achievability for some MWC's of the final draft $NO_X$ emission limit included in the emission guidelines; (2) the fact that because the EPA had not subcategorized by combustor type for purposes of determining the $NO_X$ emission limit as it had when it determined the CO emission limit, some MWC's would be forced to install retrofit technology in order to meet the more stringent $NO_X$ limit, (3) the achievability for MWC's with large new ESP's of the final draft dioxin/furan emission limit included in the emission guidelines; and (4) the inconsistency between some of the definitions in the draft rules with the definitions given in 40 CFR part 60, subpart Ea, which establishes emission limits for MWC's that commence construction after December 20, 1989, but on or before September 20, 1994.

As a result of these consultations, the EPA decided to modify the final regulatory package to address these concerns. The final emission guidelines promulgated today:

(1) Subcategorize MWC's by combustor type for the purpose of establishing different $NO_x$ emission guidelines; and

(2) Establish separate dioxin/furan emission guidelines for MWC's with ESP-based systems and MWC's with nonESP-based systems. In addition, in order to address the fourth concern identified by State and local governments, the EPA is publishing today under a separate Federal Register notice, a direct final rule that modifies the applicability and definitions sections of 40 CFR part 60, subpart Ea to improve clarity and make them consistent with those provided in the standards and emission guidelines promulgated in this notice.

Documentation of the EPA's consideration of comments on the proposed standards and guidelines is provided in the BID's for the proposed and final standards and guidelines. Refer to the **SUPPLEMENTARY INFORMATION** and **ADDRESSES** sections of this preamble for information on how to acquire copies of these documents.

As discussed in section IV.F, the number of affected small entities is not expected to be substantial. The full analysis of potential regulatory impacts on households, small governments, and small businesses is included in the economic impact analysis in the docket and listed under **SUPPLEMENTARY INFORMATION.** Because the number of affected small entities is expected to be insubstantial (i.e., the EPA considers that the regulation is likely to affect less than 20 percent of small entities with MWC's—see section IV.F for a more detailed explanation), no plan to inform and advise small governments is required under section 203 of the Unfunded Mandates Act. However, as described above, the EPA has communicated and consulted with small governments and businesses that will be affected by the standards and guidelines, keeping them informed about the content of this promulgation. Refer to section III.C. for a description of these communications.

*E. Executive Order 12875*

To reduce the burden of Federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled "Enhancing the Intergovernmental Partnership." Under Executive Order 12875, the EPA is required to consult with representatives of affected State, local, and tribal governments, and keep these affected parties informed about the content and effect of the promulgated standards and emission guidelines. Section III.A of this notice provides a brief summary of the need for the final standards and guidelines. Sections IV.C and V.C provide brief summaries of the cost of the final guidelines and standards. Section III.C provides a brief account of the actions that the EPA has taken to communicate and consult with the affected parties. The discussion provided below provides a brief summary of the content of the final standards and guidelines. For more information on the content of the final standards and guidelines, refer to sections IV.A and V.A of this notice.

The promulgated standards and guidelines establish emission limitations for new and existing MWC units located at MWC plants with plant capacities to combust greater than 35 Mg/day of MSW. The standards and guidelines do not specify which type of air pollution control equipment must be

used at MWC's to meet the promulgated emission limitations. The EPA expects, however, that, as a result of the promulgated standards and guidelines, most new and existing MWC's at large MWC plants (plants with greater than 225 Mg/day capacity) will use SD/FF systems with activated carbon injection (new plants) or retrofit SD/FF or SD/ESP systems with activated carbon injection (existing plants) for dioxins/furans, metals, and acid gas control, and will use SNCR for $NO_X$ control. New MWC's at small MWC plants (plants with 35 to 225 Mg/day capacity) are expected to install SD/FF systems with activated carbon injection, and existing MWC's at small plants are expected to install DSI/ESP systems with activated carbon injection. Selective noncatalytic reduction technology would not be necessary for either new or existing MWC's at small MWC plants.

*F. Regulatory Flexibility Act*

Section 605 of the RFA (5 U.S.C. 601 *et seq.*) requires Federal agencies to give special consideration to the impacts of regulations on small entities, which are small businesses, small organizations, and small governments. The major purpose of the RFA is to keep paperwork and regulatory requirements from getting out of proportion to the scale of the entities being regulated without compromising the objectives of, in this case, the Clean Air Act.

If a regulation is likely to have a significant economic impact on a substantial number of small entities, the EPA may give special consideration to those small entities when analyzing regulatory alternatives and drafting the regulation. In the case at hand, the EPA considers that a regulation that is likely to affect 20 percent or more of small entities with MWC's is a regulation that will affect a substantial number of small entities.

Definitions of small entities are flexible. For analysis of the regulations being proposed today, the EPA considers a small business in this industry to be one with gross annual revenue less than $6 million, and a small government to be one that serves a population less than 50,000. (A typical city of 50,000 generates about 90 Mg/day of MSW.) Most small governments dispose of their MSW by landfilling and, therefore, will not be affected by regulation of MWC emissions. In regard to small organizations such as independent not-for-profit enterprises, the EPA finds that they have no more than a very minor involvement with MWC's, and for that reason the EPA has not found it necessary to study potential direct impacts on small organizations.

The final regulations do not apply to MWC plants with capacity less than 35 Mg/day. The EPA estimates that few if any small-entity MWC's would be affected by today's promulgated standards and guidelines.

Thus, the number of affected small entities is not expected to be substantial, and a regulatory flexibility analysis is not required. Nevertheless, the EPA has conducted an extensive analysis of potential regulatory impacts on households, small governments, and small businesses. The analysis is summarized in the preambles to the proposed standards (59 FR 48198) and guidelines (59 FR 48228.) The full analysis is included in the economic impact assessment in the docket and is listed at the beginning of today's notice under SUPPLEMENTARY INFORMATION.

On December 20, 1989, the EPA proposed standards and guidelines for MWC's that applied to all sizes of MWC's. The 1989 proposal had no lower size cutoff. Small businesses, small governments, and groups representing small-entity interests commented extensively on the need to lighten the potential regulatory burden on small entities. Most commenters suggested a small size cutoff considerably smaller than the one now being proposed. The most frequently suggested levels were 5 to 11 Mg/day, 18 Mg/day, 23 Mg/day, and 45 Mg/day. The EPA has used these suggestions and the information submitted by these commenters, as well as information from other sources, to fulfill the intent of the RFA. The EPA has incorporated into the standards and guidelines being promulgated today several features that will mitigate and, in most cases eliminate, any potential, adverse economic impacts on small entities. These features are as follows:

(1) The standards and guidelines will apply only to MWC's with a plant capacity of greater than 35 Mg/day. This cutoff eliminates from the purview of the regulation and guidelines the overwhelming majority of projected new and existing very small MWC's;

(2) The standards and guidelines are "tiered" so that the stringency (and therefore potential economic burden) of the emission standards and guidelines increases as the size of the MWC plant increases. Plants with capacities less than or equal to 35 Mg/day are not covered under the final standards and guidelines. Plants with capacities of 35 to 225 Mg/day are not required to control $NO_x$. Only plants with capacities larger than 225 Mg/day—plants not often associated with small entities—are subject to a full complement of rigorous standards;

(3) As opposed to design, equipment, work practice, or operational standards, the standards for new sources and the guidelines for existing sources consist predominantly of emission limits. Emission limits give MWC owners and operators of new and existing MWC's the freedom to select the most economical means of compliance.

(4) The guidelines are not the usual type of regulation governed by the RFA. The guidelines will not apply directly to any MWC's, but will be used as a guide by individual State air pollution control agencies in developing site-specific regulations for MWC's. States are allowed some flexibility in implementing the guidelines.

Pursuant to the provisions of 5 U.S.C. 605(b), the EPA certifies that the standards and guidelines will not have a significant economic impact on a substantial number of small entities because the number of small entities affected is not substantial.

*G. Clean Air Act Procedural Requirements*

The following procedural requirements of the Clean Air Act are addressed: Administrative listing, periodic review, external participation, and economic impact assessment.

1. Administrator Listing—Sections 111 and 129 of the Clean Air Act

As prescribed by section 111 of the Clean Air Act, establishment of standards of performance and emission guidelines for MWC's is based on the Administrator's determination (52 FR 25399, July 7, 1987) that these sources contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. Additionally, section 129 of the 1990 Amendments to the Clean Air Act directs the Administrator to promulgate revised standards for new MWC's and guidelines for existing MWC's.

2. Periodic Review—Sections 111 and 129 of the Clean Air Act

Sections 111 and 129 of the Clean Air Act require that the standards and guidelines be reviewed not later than 5 years following the initial promulgation. At that time and at 5-year intervals thereafter, the Administrator shall review the standards and guidelines and revise them if necessary. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements.

3. External Participation

In accordance with section 117 of the Clean Air Act, publication of this promulgation was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

4. Economic Impact Assessment

Section 317A of the Clean Air Act requires the EPA to prepare an economic impact assessment for any standards or guidelines promulgated under section 111(b) of the Clean Air Act. An economic impact assessment was prepared for the promulgated standards and guidelines. In the manner described in the sections of this preamble regarding the impacts of and rationale for the promulgated standards and guidelines, the EPA considered all aspects of the economic impact assessment in promulgating the standards and guidelines. The economic impact assessment is included in the list of key technical documents at the beginning of today's notice under **SUPPLEMENTARY INFORMATION.**

List of Subjects in 40 CFR Part 60

Environmental Protection, Air pollution control, Intergovernmental relations, Incorporation by reference, Reporting and recordkeeping requirements.

Dated: October 31, 1995.

Carol M. Browner,

*Administrator.*

Part 60, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

## PART 60—[AMENDED]

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7414, 7416, 7429, and 7601.

2. Section 60.17 of subpart A of part 60 is amended by revising paragraphs (h)(1), (h)(2), and (h)(3) to read as follows:

**§ 60.17 Incorporation by reference.**

* * * * *

(h) * * *

(1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§ 60.56a, 60.54b(a) and 60.54b(b).

(2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h)(6)(ii), and 60.58b(i)(6)(ii).

(3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h)(6)(ii) and 60.58b(i)(6)(ii).

* * * * *

3. Section 60.23 of subpart B of part 60 is amended by revising paragraph (a)(1) to read as follows:

**§ 60.23 Adoption and submittal of State plans; public hearings.**

(a) * * *

(1) Unless otherwise specified in the applicable subpart, within 9 months after notice of the availability of a final guideline document is published under § 60.22(a), each State shall adopt and submit to the Administrator, in accordance with § 60.4 of subpart A of this part, a plan for the control of the designated pollutant to which the guideline document applies.

* * * * *

4. Section 60.24 of subpart B of part 60 is amended by revising paragraph (f) introductory text to read as follows:

**§ 60.24 Emission standards and compliance schedules.**

* * * * *

(f) Unless otherwise specified in the applicable subpart on a case-by-case basis for particular designated facilities or classes of facilities, States may provide for the application of less stringent emissions standards or longer compliance schedules than those otherwise required by paragraph (c) of this section, provided that the State demonstrates with respect to each such facility (or class of facilities):

* * * * *

5. Subpart C of part 60 is amended by revising § 60.30 to read as follows:

**§ 60.30 Scope.**

The following subparts contain emission guidelines and compliance times for the control of certain designated pollutants in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part.

(a) Subpart Ca—[Removed and Reserved]

(b) Subpart Cb—Municipal Waste Combustors

(c) Subpart Cc—[Reserved]

(d) Subpart Cd—Sulfuric Acid Production Plants

### Subpart Ca—[Removed and Reserved]

5a. Part 60 is amended by removing and reserving subpart Ca.

### Subpart Cb—[Redesignated as Subpart Cd]

### Subpart Cc—[Reserved]

6. Part 60 is amended by redesignating subpart Cb as Cd, reserving subpart Cc, and revising the new subpart Cd to read as follows:

**Subpart Cd—Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units**

Sec.

60.30d Designated facilities.
60.31d Emission guidelines.
60.32d Compliance times.

### Subpart Cd—Emission Guidelines and Compliance Times for Sulfuric Acid Production Units

**§ 60.30d Designated facilities.**

Sulfuric acid production units. The designated facility to which §§ 60.31d and 60.32d apply is each existing "sulfuric acid production unit" as defined in § 60.81(a) of subpart H of this part.

**§ 60.31d Emissions guidelines.**

Sulfuric acid production units. The emission guideline for designated facilities is 0.25 grams sulfuric acid mist (as measured by EPA Reference Method 8 of appendix A of this part) per kilogram (0.5 pounds per ton) of sulfuric acid produced, the production being expressed as 100 percent sulfuric acid.

**§ 60.32d Compliance times.**

Sulfuric acid production units. Planning, awarding of contracts, and installation of equipment capable of attaining the level of the emission guideline established under § 60.31d can be accomplished within 17 months after the effective date of a State emission standard for sulfuric acid mist.

7. Part 60 is further amended by adding a new subpart Cb to read as follows:

**Subpart Cb—Emissions Guidelines and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995**

Sec.

60.30b Scope.
60.31b Definitions.
60.32b Designated facilities.
60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.
60.34b Emission guidelines for municipal waste combustor operating practices.
60.35b Emission guidelines for municipal waste combustor operator training and certification.
60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.
60.37b Emission guidelines for air curtain incinerators.

60.38b Compliance and performance testing.
60.39b Reporting and recordkeeping guidelines, and compliance schedules.

## Subpart Cb—Emissions Guidelines and Compliance Schedules for Municipal Waste Combustors

### § 60.30b Scope.

This subpart contains emission guidelines and compliance schedules for the control of certain designated pollutants from certain municipal waste combustors in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines supersede the provisions of § 60.24(f) of subpart B of this part.

### § 60.31b Definitions.

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and subparts A, B, and Eb of this part.

*Municipal waste combustor plant* means one or more municipal waste combustor units at the same location for which construction was commenced on or before September 20, 1994.

*Municipal waste combustor plant capacity* means the aggregate municipal waste combustor unit capacity of all municipal waste combustor units at a municipal waste combustor plant for which construction was commenced on or before September 20, 1994.

### § 60.32b Designated facilities.

(a) The designated facility to which these guidelines apply is each municipal waste combustor unit located within a municipal waste combustor plant with an aggregate municipal waste combustor plant capacity greater than 35 megagrams per day of municipal solid waste for which construction was commenced on or before September 20, 1994.

(b) Any waste combustion unit at a medical, industrial, or other type of waste combustor plant that is capable of combusting more than 35 megagrams per day of municipal solid waste and is subject to a federally enforceable permit limiting the plantwide maximum amount of municipal solid waste that may be combusted to less than or equal to 10 megagrams per day is not subject to this subpart if the owner or operator:

(1) Notifies the Administrator of an exemption claim,

(2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 10 megagrams per day, and

(3) Keeps records of the amount of municipal solid waste fired on a daily basis.

(c) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under this subpart are not considered in determining whether the unit is a modified or reconstructed facility under subpart Ea or subpart Eb of this part.

(d) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies the Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(e) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies the Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:

(1) Notifies the Administrator of an exemption claim, and

(2) Provides data documenting that the unit qualifies for this exemption.

(g) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(h) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.

(i) Any cofired combustor, as defined under § 60.51b of subpart Eb of this part, that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the cofired combustor:

(1) Notifies the Administrator of an exemption claim,

(2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section), and

(3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.

(j) Air curtain incinerators, as defined under § 60.51b of subpart Eb of this part, that meet the capacity specifications in paragraph (a) of this section, and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity standard under § 60.37b, the testing procedures under § 60.38b, and the reporting and recordkeeping provisions under § 60.39b.

(k) Air curtain incinerators that meet the capacity specifications in paragraph (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart.

(l) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in § 60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.

### § 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.

(a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.

(i) The emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) The emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility located within a small municipal waste combustor plant is 70

milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility located within a small or large municipal waste combustor plant is 10 percent (6-minute average).

(2) For approval, a State plan shall include emission limits for cadmium and lead at least as protective as the emission limits for cadmium and lead specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.

(i) The emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) The emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility located within a small municipal waste combustor plant is 0.10 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(iii) The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant is 0.49 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(iv) The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility located within a small municipal waste combustor plant is 1.6 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. The emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility located within a small or large municipal waste combustor plant is 0.080 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(b) The emission limits for municipal waste combustor acid gases, expressed as sulfur dioxide and hydrogen chloride, are specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For approval, a State plan shall include emission limits for sulfur dioxide at least as protective as the emission limits for sulfur dioxide specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant is 31 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(ii) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility located within a small municipal waste combustor plant is 80 parts per million by volume or 50 percent of the potential sulfur dioxide emission concentration (50-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour geometric mean.

(2) For approval, a State plan shall include emission limits for hydrogen chloride at least as protective as the emission limits for hydrogen chloride specified in paragraphs (b)(2)(i) and (b)(2)(ii) of this section.

(i) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant is 31 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(ii) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from an affected facility located within a small municipal waste combustor plant is 250 parts per million by volume or 50 percent of the potential hydrogen chloride emission concentration (50-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(c) The emission limits for municipal waste combustor organics, expressed as total mass dioxins/furans, are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For approval, a State plan shall include an emission limit for dioxins/furans contained in the gases discharged to the atmosphere from a designated facility located within a large municipal waste combustor plant at least as protective as the emission limit for dioxins/furans specified in either paragraph (c)(1)(i) or (c)(1)(ii) of this section, as applicable.

(i) The emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(ii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(2) For approval, a State plan shall include an emission limit for dioxins/furans contained in the gases discharged to the atmosphere from a designated facility located within a small municipal waste combustor plant at least as protective as the emission limit for dioxins/furans specified in this paragraph. The emission limit for dioxins/furans for designated facilities located within a small municipal waste combustor plant is 125 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(d) For approval, a State plan shall include emission limits for nitrogen oxides at least as protective as the emission limits listed in table 1 of this subpart for designated facilities located within large municipal waste combustor plants. Table 1 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

TABLE 1.—NITROGEN OXIDES GUIDELINES FOR DESIGNATED FACILITIES AT LARGE MUNICIPAL WASTE COMBUSTOR PLANTS

| Municipal waste combustor technology | Nitrogen oxides emission limit (parts per million by volume)[a] |
|---|---|
| Mass burn waterwall | 200 |
| Mass burn rotary waterwall | 250 |
| Refuse-derived fuel combustor | 250 |
| Fluidized bed combustor | 240 |
| Mass burn refractory combustors | no limit |
| Other[b] | 200 |

[a] Corrected to 7 percent oxygen, dry basis.
[b] Excludes mass burn refractory municipal waste combustors.

(1) A State plan may allow nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section.

(i) An owner or operator of a large municipal waste combustor plant may elect to implement a nitrogen oxides emissions averaging plan for the designated facilities that are located at that plant and that are subject to subpart Cb, except as specified in paragraphs

(d)(1)(i)(A) and (d)(1)(i)(B) of this section.

(A) Municipal waste combustor units subject to subpart Ea or Eb cannot be included in the emissions averaging plan.

(B) Mass burn refractory municipal waste combustor units cannot be included in the emissions averaging plan.

(ii) The designated facilities included in the nitrogen oxides emissions averaging plan must be identified in the initial compliance report specified in § 60.59b(f) or in the annual report specified in § 60.59b(g), as applicable, prior to implementing the averaging plan. The designated facilities being included in the averaging plan may be redesignated each calendar year. Partial year redesignation is allowable with State approval.

(iii) To implement the emissions averaging plan, the average daily (24-hour) nitrogen oxides emission concentration level for gases discharged from the designated facilities being included in the emissions averaging plan must be no greater than the levels specified in table 2 of this subpart. Table 2 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

TABLE 2.—NITROGEN OXIDES LIMITS FOR EXISTING DESIGNATED FACILITIES INCLUDED IN AN EMISSIONS AVERAGING PLAN AT LARGE MUNICIPAL WASTE COMBUSTOR PLANTS

| Municipal waste combustor technology | Nitrogen oxides emission limit (parts per million by volume)[a] |
|---|---|
| Mass burn waterwall | 180 |
| Mass burn rotary waterwall | 220 |
| Refuse-derived fuel combustor | 230 |
| Fluidized bed combustor | 220 |
| Other[b] | 180 |

[a] Corrected to 7 percent oxygen, dry basis.
[b] Excludes mass burn refractory municipal waste combustors. Mass burn refractory municipal waste combustors may not be included in an emissions averaging plan.

(iv) Under the emissions averaging plan, the average daily nitrogen oxides emissions specified in paragraph (d)(1)(iii) of this section shall be calculated using equation (1). Designated facilities that are offline shall not be included in calculating the average daily nitrogen oxides emission level.

$$NO_{X_{24\text{-hr}}} = \frac{\sum_{i=1}^{h}\left(NO_{X_i}\right)\left(S_i\right)}{\sum_{i=1}^{h}\left(S_i\right)} \quad (1)$$

where:

$NO_{X\,24\text{-hr}}$=24-hr daily average nitrogen oxides emission concentration level for the emissions averaging plan (parts per million by volume corrected to 7 percent oxygen).

$NO_{X\,i\text{-hr}}$=24-hr daily average nitrogen oxides emission concentration level for designated facility i (parts per million by volume, corrected to 7 percent oxygen), calculated according to the procedures in § 60.58b(h) of this subpart.

$S_i$=maximum demonstrated municipal waste combustor unit load for designated facility i (pounds per hour steam or feedwater flow as determined in the most recent dioxin/furan performance test).

h=total number of designated facilities being included in the daily emissions average.

(v) For any day in which any designated facility included in the emissions averaging plan is offline, the owner or operator of the municipal waste combustor plant must demonstrate compliance according to either paragraph (d)(1)(v)(A) of this section or both paragraphs (d)(1)(v)(B) and (d)(1)(v)(C) of this section.

(A) Compliance with the applicable limits specified in table 2 of this subpart shall be demonstrated using the averaging procedure specified in paragraph (d)(1)(iv) of this section for the designated facilities that are online.

(B) For each of the designated facilities included in the emissions averaging plan, the nitrogen oxides emissions on a daily average basis shall be calculated and shall be equal to or less than the maximum daily nitrogen oxides emission level achieved by that designated facility on any of the days during which the emissions averaging plan was achieved with all designated facilities online during the most recent calendar quarter. The requirements of this paragraph do not apply during the first quarter of operation under the emissions averaging plan.

(C) The average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(*2*) of this section shall not exceed the average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(*1*) of this section.

(*1*) For all days during which the emissions averaging plan was implemented and achieved and during which all designated facilities were online, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(*1*)(*i*) through (d)(1)(v)(C)(*1*)(*iii*) of this section.

(*i*) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19–1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(*ii*) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(*1*)(*i*) of this section.

(*iii*) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(*1*)(*ii*) of this section divided by the number of calendar days for which a daily total was calculated.

(*2*) For all days during which one or more of the designated facilities under the emissions averaging plan was offline, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(*2*)(*i*) through (d)(1)(v)(C)(*2*)(*iii*) of this section.

(*i*) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19–1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(*ii*) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(*2*)(*i*) of this section.

(*iii*) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated

as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(*2*)(*ii*) of this section divided by the number of calendar days for which a daily total was calculated.

(2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to engage in trading of nitrogen oxides emission credits. A trading program must be approved by the Administrator before implementation.

**§ 60.34b Emission guidelines for municipal waste combustor operating practices.**

(a) For approval, a State plan shall include emission limits for carbon monoxide at least as protective as the emission limits for carbon monoxide listed in table 3 of this subpart. Table 3 provides emission limits for the carbon monoxide concentration level for each type of designated facility located within a small or large municipal waste combustor plant.

TABLE 3.—MUNICIPAL WASTE COMBUSTOR OPERATING GUIDELINES

| Municipal waste combustor technology | Carbon monoxide emissions level (parts per million by volume)[a] | Averaging time (hrs) |
|---|---|---|
| Mass burn waterwall | 100 | 4 |
| Mass burn refractory | 100 | 4 |
| Mass burn rotary refractory | 100 | 24 |
| Mass burn rotary waterwall | 250 | 24 |
| Modular starved air | 50 | 4 |
| Modular excess air | 50 | 4 |
| Refuse-derived fuel stoker | 200 | 24 |
| Buddling fluidized bed combustor | 100 | 4 |
| Circulating fluidized bed combustor | 100 | 4 |
| Pulverized coal/refuse-derived fuel mixed fuel-fired combustor | 150 | 4 |
| Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor | 200 | 24 |

[a] Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average.

(b) For approval, a State plan shall include requirements for municipal waste combustor operating practices at least as protective as those requirements listed in § 60.53b(b) and (c) of subpart Eb of this part.

**§ 60.35b Emission guidelines for municipal waste combustor operator training and certification.**

For approval, a State plan shall include requirements for designated facilities located within small or large municipal waste combustor plants for municipal waste combustor operator training and certification at least as protective as those requirements listed in § 60.54b of subpart Eb of this part. The State plan shall require compliance with these requirements according to the schedule specified in § 60.39b(c)(4).

**§ 60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.**

For approval, a State plan shall include requirements for municipal waste combustor fugitive ash emissions at least as protective as those requirements listed in § 60.55b of subpart Eb of this part.

**§ 60.37b Emission guidelines for air curtain incinerators.**

For approval, a State plan shall include emission limits for opacity for air curtain incinerators at least as protective as those listed in § 60.56b of subpart Eb of this part.

**§ 60.38b Compliance and performance testing.**

(a) For approval, a State plan shall include the performance testing methods listed in § 60.58b of subpart Eb of this part, as applicable, except as provided for under § 60.24(b)(2) of subpart B of this part and paragraphs (b) and (c) of this section.

(b) For approval, a State plan shall include for designated facilities at large municipal waste combustor plants the alternative performance testing schedule for dioxins/furans specified in § 60.58b(g)(5)(iii) of subpart Eb of this part, as applicable, for those designated facilities that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen.

(c) For approval, a State plan shall include for designated facilities at small municipal waste combustor plants the alternative performance testing schedule for dioxins/furans specified in § 60.58b(g)(5)(iii) of subpart Eb of this part, as applicable, for those designated facilities that achieve a dioxin/furan emission level less than or equal to 30 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen.

**§ 60.39b Reporting and recordkeeping guidelines and compliance schedules.**

(a) For approval, a State plan shall include the reporting and recordkeeping provisions listed in § 60.59b of subpart Eb of this part, as applicable, except for the siting requirements under § 60.59b(a), (b)(5), and (d)(11) of subpart Eb of this part.

(b) Not later than December 19, 1996, each State in which a designated facility is operating shall submit to the Administrator a plan to implement and enforce the emission guidelines. The compliance schedule specified in this paragraph is in accordance with section 129(b)(2) of the Act and supersedes the compliance schedule provided in § 60.23(a)(1) of subpart B of this part.

(c) For approval, a State plan shall include the compliance schedules specified in paragraphs (c)(1) through (c)(5) of this section.

(1) A State plan shall allow designated facilities located within large municipal waste combustor plants to comply with all requirements of a State plan (or close) within 1 year after approval of the State plan, except as provided by paragraph (c)(1)(i) and (c)(1)(ii) of this section.

(i) A State plan that allows designated facilities more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit, if a permit modification is

required, or more than 1 year but less than 3 years following approval of the State plan, if a permit modification is not required, shall include measurable and enforceable incremental steps of progress toward compliance. Suggested measurable and enforceable activities are specified in paragraphs (c)(1)(i)(A) through (c)(1)(i)(J) of this section.

(A) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(B) Date for obtaining design drawings of the air pollution control device(s);

(C) Date for submittal of permit modifications, if necessary;

(D) Date for submittal of the final control plan to the Administrator. [§ 60.21 (h)(1) of subpart B of this part.];

(E) Date for ordering the air pollution control device(s);

(F) Date for obtaining the major components of the air pollution control device(s);

(G) Date for initiation of site preparation for installation of the air pollution control device(s);

(H) Date for initiation of installation of the air pollution control device(s);

(I) Date for initial startup of the air pollution control device(s); and

(J) Date for initial performance test(s) of the air pollution control device(s).

(ii) A State plan that allows designated facilities more than 1 year but up to 3 years after State plan approval to close shall require a closure agreement. The closure agreement must include the date of plant closure.

(2) If the State plan requirements for a designated facility located within a large municipal waste combustor plant include a compliance schedule longer than 1 year after approval of the State plan in accordance with paragraph (c)(1)(i) or (c)(1)(ii) of this section, the State plan submittal (for approval) shall include performance test results for dioxin/furan emissions for each designated facility that has a compliance schedule longer than 1 year following the approval of the State plan, and the performance test results shall have been conducted during or after 1990. The performance test shall be conducted according to the procedures in § 60.38b.

(3) A State plan shall allow designated facilities located within small municipal waste combustor plants to comply with all requirements of the State plan (or close) within 3 years following the date of issuance of a revised construction or operation permit, if a permit modification is required, or within 3 years following approval of the State plan, if a permit modification is not required.

(4) A State plan shall require compliance with the municipal waste combustor operator training and certification requirements under § 60.35b according to the schedule specified in paragraphs (c)(4)(i) through (c)(4)(iii) of this section.

(i) For designated facilities located within small municipal waste combustor plants, the State plan shall require compliance with the municipal waste combustor operator training and certification requirements specified under § 60.54b (a) through (c) of subpart Eb of this part by the date 6 months after startup of a designated facility or 18 months after State plan approval, whichever is later.

(ii) For designated facilities located within large municipal waste combustor plants, the State plan shall require compliance with the municipal waste combustor operator training and certification requirements specified under § 60.54b (a) through (c) of subpart Eb of this part by the date 6 months after the date of startup or 12 months after State plan approval, whichever is later.

(iii) For designated facilities located within small or large municipal waste combustor plants, the State plan shall require compliance with the requirements specified in § 60.54b (d), (f), and (g) of subpart Eb of this part no later than 6 months after startup or 12 months after State plan approval, whichever is later.

(A) The requirement specified in § 60.54b(d) of subpart Eb of this part does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

(B) The owner or operator may request that the Administrator waive the requirement specified in § 60.54b(d) of subpart Eb of this part for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

(C) The initial training requirements specified in § 60.54b(f)(1) of subpart Eb of this part shall be completed no later than the date specified in paragraph (c)(4)(iii)(C)(*1*), (c)(4)(iii)(C)(*2*), or (c)(4)(iii)(C)(*3*), of this section whichever is later.

(*1*) The date 6 months after the date of startup of the affected facility;

(*2*) Twelve months after State plan approval; or

(*3*) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

(5) A State plan shall require all designated facilities for which construction, modification, or reconstruction is commenced after June 26, 1987 that are located within a large municipal waste combustor plant to comply with the emission limit for mercury specified in § 60.33b(a)(3) and the emission limit for dioxins/furans specified in § 60.33b(c)(1) within 1 year following issuance of a revised construction or operation permit, if a permit modification is required, or within 1 year following approval of the State plan, whichever is later.

(d) In the event no plan for implementing the emission guidelines is adopted, all designated facilities meeting the applicability requirements under § 60.32b shall be in compliance with the guidelines no later than December 19, 2000.

8. Part 60 is amended by adding subpart Eb as follows:

**Subpart Eb—Standards of Performance for Municipal Waste Combustors for Which Construction Is Commenced After September 20, 1994**

Sec.

60.50b Applicability and delegation of authority.
60.51b Definitions.
60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.
60.53b Standards for municipal waste combustor operating practices.
60.54b Standards for municipal waste combustor operator training and certification.
60.55b Standards for municipal waste combustor fugitive ash emissions.
60.56b Standards for air curtain incinerators.
60.57b Siting requirements.
60.58b Compliance and performance testing.
60.59b Reporting and recordkeeping requirements.

## Subpart Eb—Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994

### § 60.50b Applicability and delegation of authority.

(a) The affected facility to which this subpart applies is each municipal waste combustor unit located within a municipal waste combustor plant with an aggregate municipal waste combustor plant capacity greater than 35 megagrams per day of municipal solid waste for which construction is commenced after September 20, 1994 or for which modification or reconstruction is commenced after June 19, 1996.

(b) Any waste combustion unit at a medical, industrial, or other type of waste combustor plant that is capable of combusting more than 35 megagrams per day of municipal solid waste and is subject to a federally enforceable permit limiting the plantwide maximum amount of municipal solid waste that may be combusted to less than or equal to 10 megagrams per day is not subject to this subpart if the owner or operator:

(1) Notifies the Administrator of an exemption claim;

(2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 10 megagrams per day; and

(3) Keeps records of the amount of municipal solid waste fired on a daily basis.

(c) An affected facility to which this subpart applies is not subject to subpart E or Ea of this part.

(d) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart.

(e) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies the Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies the Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(g) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:

(1) Notifies the Administrator of an exemption claim; and

(3) Provides data documenting that the unit qualifies for this exemption.

(h) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(i) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.

(j) Any cofired combustor, as defined under § 60.51b, located at a plant that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the cofired combustor:

(1) Notifies the Administrator of an exemption claim;

(2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section); and

(3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.

(k) Air curtain incinerators, as defined under § 60.51b, located at a plant that meet the capacity specifications in paragraph (a) of this section and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity limit under § 60.56b, the testing procedures under § 60.58b(l), and the reporting and recordkeeping provisions under § 60.59b (e) and (i).

(l) Air curtain incinerators located at plants that meet the capacity specifications in paragraph (a) of this section combusting municipal solid waste other than yard waste are subject to all provisions of this subpart.

(m) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in § 60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.

(n) The following authorities shall be retained by the Administrator and not transferred to a State: None.

(o) This subpart shall become effective June 19, 1996.

**§ 60.51b Definitions.**

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which burning occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.

*Batch municipal waste combustor* means a municipal waste combustor unit designed so that it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed while combustion is occurring.

*Bubbling fluidized bed combustor* means a fluidized bed combustor in which the majority of the bed material remains in a fluidized state in the primary combustion zone.

*Calendar quarter* means a consecutive 3-month period (nonoverlapping) beginning on January 1, April 1, July 1, and October 1.

*Calendar year* means the period including 365 days starting January 1 and ending on December 31.

*Chief facility operator* means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for daily onsite supervision, technical direction, management, and overall performance of the facility.

*Circulating fluidized bed combustor* means a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

*Clean wood* means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, which is defined elsewhere in this section, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles), which are exempt from the definition of municipal solid waste in this section.

*Cofired combustor* means a unit combusting municipal solid waste with nonmunicipal solid waste fuel (e.g., coal, industrial process waste) and subject to a federally enforceable permit limiting the unit to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis.

*Continuous emission monitoring system* means a monitoring system for continuously measuring the emissions of a pollutant from an affected facility.

*Dioxin/furan* means tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator including the requirements of 40 CFR parts 60, 61, and 63, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*First calendar half* means the period starting on January 1 and ending on June 30 in any year.

*Four-hour block average* or *4-hour block average* means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over 4-hour periods of time from 12:00 midnight to 4 a.m., 4 a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4 p.m. to 8 p.m., and 8 p.m. to 12:00 midnight.

*Large municipal waste combustor plant* means a municipal waste combustor plant with a municipal waste combustor aggregate plant capacity for affected facilities that is greater than 225 megagrams per day of municipal solid waste.

*Mass burn refractory municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

*Mass burn rotary waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

*Mass burn waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

*Materials separation plan* means a plan that identifies both a goal and an approach to separate certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems. A materials separation plan may include different goals or approaches for different subareas in the service area, and may include no materials separation activities for certain subareas or, if warranted, an entire service area.

*Maximum demonstrated municipal waste combustor unit load* means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.52b(c).

*Maximum demonstrated particulate matter control device temperature* means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under § 60.52b(c).

*Modification* or *modified municipal waste combustor unit* means a municipal waste combustor unit to which changes have been made after June 19, 1996 if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100-percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.

*Modular excess-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

*Modular starved-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

*Municipal solid waste* or *municipal-type solid waste* or *MSW* means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include:

(1) Yard waste;

(2) Refuse-derived fuel; and

(3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in § 60.50b(g).

*Municipal waste combustor, MWC,* or *municipal waste combustor unit*: (1) Means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Municipal waste combustors do not include pyrolysis/combustion units located at a plastics/rubber recycling unit (as specified in § 60.50b(m) of this section). Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) The boundaries of a municipal solid waste combustor are defined as follows. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the

municipal solid waste pit or hopper and extends through:

(i) The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber,

(ii) The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfer the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and

(iii) The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.

(3) The municipal waste combustor unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

*Municipal waste combustor acid gases* means all acid gases emitted in the exhaust gases from municipal waste combustor units including, but not limited to, sulfur dioxide and hydrogen chloride gases.

*Municipal waste combustor metals* means metals and metal compounds emitted in the exhaust gases from municipal waste combustor units.

*Municipal waste combustor organics* means organic compounds emitted in the exhaust gases from municipal waste combustor units and includes tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*Municipal waste combustor* plant means one or more municipal waste combustor units at the same location for which construction, modification, or reconstruction is commenced after September 20, 1994.

*Municipal waste combustor plant capacity* means the aggregate municipal waste combustor unit capacity of all municipal waste combustor units at a municipal waste combustor plant for which construction, modification, or reconstruction of the units commenced after September 20, 1994. Any municipal waste combustor units for which construction, modification, or reconstruction is commenced on or before September 20, 1994 are not included for determining applicability under this subpart.

*Municipal waste combustor unit capacity* means the maximum charging rate of a municipal waste combustor unit expressed in megagrams per day of municipal solid waste combusted, calculated according to the procedures under § 60.58b(j). Section 60.58b(j) includes procedures for determining municipal waste combustor unit capacity for continuous and batch feed municipal waste combustors.

*Municipal waste combustor unit load* means the steam load of the municipal waste combustor unit measured as specified in § 60.58b(i)(6).

*Particulate matter* means total particulate matter emitted from municipal waste combustor units as measured by EPA Reference Method 5 (see § 60.58b(c)).

*Plastics/rubber recycling unit* means an integrated processing unit where plastics, rubber, and/or rubber tires are the only feed materials (incidental contaminants may be included in the feed materials) and they are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The combined weight of the chemical plant feedstock and petroleum refinery feedstock produced by the plastics/rubber recycling unit on a calendar quarter basis shall be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires processed by the plastics/rubber recycling unit on a calendar quarter basis. The plastics, rubber, and/or rubber tire feed materials to the plastics/rubber recycling unit may originate from the separation or diversion of plastics, rubber, or rubber tires from MSW or industrial solid waste, and may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards. The plastics, rubber, and rubber tire feed materials to the plastics/rubber recycling unit may contain incidental contaminants (e.g., paper labels on plastic bottles, metal rings on plastic bottle caps, etc.).

*Potential hydrogen chloride emission concentration* means the hydrogen chloride emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Potential mercury emission concentration* means the mercury emission concentration that would occur from combustion of municipal solid waste in the absence of any mercury emissions control.

*Potential sulfur dioxide emissions* means the sulfur dioxide emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Pulverized coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is fired in suspension. This includes both conventional pulverized coal and micropulverized coal.

*Pyrolysis/combustion unit* means a unit that produces gases, liquids, or solids through the heating of municipal solid waste, and the gases, liquids, or solids produced are combusted and emissions vented to the atmosphere.

*Reconstruction* means rebuilding a municipal waste combustor unit for which the reconstruction commenced after June 19, 1996, and the cumulative costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

*Refractory unit* or *refractory wall furnace* means a combustion unit having no energy recovery (e.g., via a waterwall) in the furnace (i.e., radiant heat transfer section) of the combustor.

*Refuse-derived/fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including low-density fluff refuse-derived fuel through densified refuse-derived fuel and pelletized refuse-derived fuel.

*Refuse-derived fuel stoker* means a steam generating unit that combusts refuse-derived fuel in a semisuspension firing mode using air-fed distributors.

*Same location* means the same or contiguous property that is under common ownership or control including properties that are separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof including any municipality or other governmental unit, or any quasi-governmental authority (e.g., a public utility district or regional waste disposal authority).

*Second calendar half* means the period starting July 1 and ending on December 31 in any year.

*Shift supervisor* means the person who is in direct charge and control of the operation of a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the facility during an assigned shift.

*Small municipal waste combustor plant* means a municipal waste combustor plant with a municipal waste combustor plant capacity for affected

facilities that is greater than 35 megagrams per day but equal to or less than 225 megagrams per day of municipal solid waste.

*Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Standard conditions* means a temperature of 20° C and a pressure of 101.3 kilopascals.

*Total mass dioxin/furan* or *total mass* means the total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans, as determined using EPA Reference Method 23 and the procedures specified under § 60.58b(g).

*Twenty-four hour daily average* or *24-hour daily average* means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

*Untreated lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or "pressure-treated." Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

*Waterwall furnace* means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes, which are exempt from the definition of municipal solid waste in this section. Yard waste does not include clean wood, which is exempt from the definition of municipal solid waste in this section.

**§ 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

(a) The limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(5) of this section.

(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 24 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(2) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 10 percent opacity (6-minute average).

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain cadmium in excess of 0.020 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(4) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from the affected facility any gases that contain lead in excess of 0.20 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(5) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from the affected facility any gases that contain mercury in excess of 0.080 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(b) The limits for municipal waste combustor acid gases are specified in paragraphs (b)(1) and (b)(2) of this section.

(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain sulfur dioxide in excess of 30 parts per million by volume or 20 percent of the potential sulfur dioxide emission concentration (80-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. The averaging time is specified under § 60.58b(e).

(2) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain hydrogen chloride in excess of 25 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(c) The limits for municipal waste combustor organics are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant for which construction, modification, or reconstruction commences after September 20, 1994, but on or before November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan emissions that exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for the first 3 years following the date of initial startup. After the first 3 years following the date of initial startup, no owner or operator shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(2) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant for which construction,

modification, or reconstruction commences after November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(d) The limits for nitrogen oxides are specified in paragraphs (d)(1) and (d)(2) of this section.

(1) During the first year of operation after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 180 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under § 60.58b(h).

(2) After the first year of operation following the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 150 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under § 60.58b(h).

**§ 60.53b Standards for municipal waste combustor operating practices.**

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain carbon monoxide in excess of the emission limits specified in table 1 of this subpart.

TABLE 1.—MUNICIPAL WASTE COMBUSTOR OPERATING STANDARDS

| Municipal waste combustor technology | Carbon monoxide emission limit (parts per million by volume)[a] | Averaging time (hours) |
|---|---|---|
| Mass burn waterwall | 100 | 4 |
| Mass burn refractory | 100 | 4 |
| Mass burn rotary waterwall | 100 | 24 |
| Modular starved air | 50 | 4 |
| Modular excess air | 50 | 4 |
| Refuse-derived fuel stoker | 150 | 24 |
| Bubbling fluidized bed combustor | 100 | 4 |
| Circulating fluidized bed combustor | 100 | 4 |
| Pulverized coal/refuse-derived fuel mixed fuel-fired combustor | 150 | 4 |
| Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor | 150 | 24 |

[a] Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). The averaging times are specified in greater detail in § 60.58b(i).

(b) No owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in § 60.51b, except as specified in paragraphs (b)(1) and (b)(2) of this section. The averaging time is specified under § 60.58b(i).

(1) During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, no municipal waste combustor unit load limit is applicable.

(2) The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(c) No owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17 °C above the maximum demonstrated particulate matter control device temperature as defined in § 60.51b, except as specified in paragraphs (c)(1) and (c)(2) of this section. The averaging time is specified under § 60.58b(i). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.

(1) During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable.

(2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

**§ 60.54b Standards for municipal waste combustor operator training and certification.**

(a) No later than the date 6 months after the date of startup of an affected facility located within a small or large municipal waste combustor plant or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO–1–1994 (incorporated by reference—see § 60.17 of subpart A of this part)] or a State certification program.

(b) Not later than the date 6 months after the date of startup of an affected facility located within a small or large municipal waste combustor plant or on December 19, 1996, whichever is later, each chief facility operator and shift

supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO–1–1994 (incorporated by reference—see § 60.17 of subpart A of this part)] or a State certification program.

(c) No owner or operator of an affected facility located within a small or large municipal waste combustor plant shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section, a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section.

(i) The requirement specified in paragraph (c) of this section shall take effect 6 months after the date of startup of the affected facility or on December 19, 1996, whichever is later.

(ii) If one of the persons listed in paragraph (c) of this section must leave the affected facility during their operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirement in paragraph (c) of this section.

(d) All chief facility operators, shift supervisors, and control room operators at affected facilities located within a small or large municipal waste combustor plant must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility or by December 19, 1996, whichever is later.

(e) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (e)(1) through (e)(11) of this section.

(1) A summary of the applicable standards under this subpart;

(2) A description of basic combustion theory applicable to a municipal waste combustor unit;

(3) Procedures for receiving, handling, and feeding municipal solid waste;

(4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the municipal waste combustor unit within the standards established under this subpart;

(7) Procedures for responding to periodic upset or off-specification conditions;

(8) Procedures for minimizing particulate matter carryover;

(9) Procedures for handling ash;

(10) Procedures for monitoring municipal waste combustor unit emissions; and

(11) Reporting and recordkeeping procedures.

(f) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) of this section with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

(1) Each person specified in paragraph (f) of this section shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this section whichever is later.

(i) The date 6 months after the date of startup of the affected facility;

(ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or

(iii) December 19, 1996.

(2) Annually, following the initial review required by paragraph (f)(1) of this section.

(g) The operating manual required by paragraph (e) of this section shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f) of this section. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

**§ 60.55b Standards for municipal waste combustor fugitive ash emissions.**

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, no owner or operator of an affected facility located within a small or large municipal waste combustor plant shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in § 60.58b(k), except as provided in paragraphs (b) and (c) of this section.

(b) The emission limit specified in paragraph (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(c) The provisions specified in paragraph (a) of this section do not apply during maintenance and repair of ash conveying systems.

**§ 60.56b Standards for air curtain incinerators.**

On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an air curtain incinerator located at a plant with a plant capacity to combust greater than 35 megagrams per day of municipal solid waste and that combusts a fuel feed stream composed of 100 percent yard waste and no other municipal solid waste materials shall at no time cause to be discharged into the atmosphere from that incinerator any gases that exhibit greater than 10-percent opacity (6-minute average), except that an opacity level of up to 35 percent (6-minute average) is permitted during startup periods during the first 30 minutes of operation of the unit.

**§ 60.57b Siting requirements.**

(a) The owner or operator of an affected facility located within a small or large municipal waste combustor plant, for which the initial application for a construction permit under 40 CFR part 51, subpart I, or part 52, as applicable, is submitted after December 19, 1995, shall prepare a materials separation plan, as defined in § 60.51b, for the affected facility and its service area, and shall comply with the requirements specified in paragraphs (a)(1) through (a)(10) of this section. The initial application is defined as representing a good faith submittal for complying with the requirements under 40 CFR part 51, subpart I, or part 52, as applicable, as determined by the Administrator.

(1) The owner or operator shall prepare a preliminary draft materials separation plan and shall make the plan available to the public as specified in

paragraphs (a)(1)(i) and (a)(1)(ii) of this section.

(i) The owner or operator shall distribute the preliminary draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.

(ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (a)(1)(ii)(A) through (a)(1)(ii)(D) of this section.

(A) The date, time, and location of the public meeting.

(B) The location of the public libraries where the preliminary draft materials separation plan may be found, including normal business hours of the libraries.

(C) An agenda of the issues to be discussed at the public meeting.

(D) The dates that the public comment period on the preliminary draft materials separation plan begins and ends.

(2) The owner or operator shall conduct a public meeting, accept comments on the preliminary draft materials separation plan, and comply with the requirements specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.

(i) The public meeting shall be conducted in the county where the affected facility is to be located.

(ii) The public meeting shall be scheduled to occur 30 days or more after making the preliminary draft materials separation plan available to the public as specified under paragraph (a)(1) of this section.

(iii) Suggested issues to be addressed at the public meeting are listed in paragraphs (a)(2)(iii)(A) through (a)(2)(iii)(H) of this section.

(A) The expected size of the service area for the affected facility.

(B) The amount of waste generation anticipated for the service area.

(C) The types and estimated amounts of materials proposed for separation.

(D) The methods proposed for materials separation.

(E) The amount of residual waste to be disposed.

(F) Alternate disposal methods for handling the residual waste.

(G) Identification of the location(s) where responses to public comment on the preliminary draft materials separation plan will be available for inspection, as specified in paragraphs (a)(3) and (a)(4) of this section.

(H) Identification of the locations where the final draft materials separation plan will be available for inspection, as specified in paragraph (a)(7).

(iv) Nothing in this section shall preclude an owner or operator from combining this public meeting with any other public meeting required as part of any other Federal, State, or local permit review process except the public meeting required under paragraph (b)(4) of this section.

(3) Following the public meeting required by paragraph (a)(2) of this section, the owner or operator shall prepare responses to the comments received at the public meeting.

(4) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to the principal public libraries used to announce the meeting) in the service area where the affected facility is to be located.

(5) The owner or operator shall prepare a final draft materials separation plan for the affected facility considering the public comments received at the public meeting.

(6) As required under § 60.59b(a), the owner or operator shall submit to the Administrator a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and copies of both the preliminary and final draft materials separation plans on or before the time the facility's application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable.

(7) As part of the distribution of the siting analysis required under paragraph (b)(3) of this section, the owner or operator shall make the final draft materials separation plan required under paragraph (a)(5) of this section available to the public, as specified in paragraph (b)(3) of this section.

(8) As part of the public meeting for review of the siting analysis required under paragraph (b)(4) of this section, the owner or operator shall address questions concerning the final draft materials separation plan required by paragraph (a)(5) of this section including discussion of how the final draft materials separation plan has changed from the preliminary draft materials separation plan that was discussed at the first public meeting required by paragraph (a)(2) of this section.

(9) If the owner or operator receives any comments on the final draft materials separation plan during the public meeting required in paragraph (b)(4) of this section, the owner or operator shall respond to those comments in the document prepared in accordance with paragraph (b)(5) of this section.

(10) The owner or operator shall prepare a final materials separation plan and shall submit, as required under § 60.59b(b)(5)(ii), the final materials separation plan as part of the initial notification of construction.

(b) The owner or operator of an affected facility located within a small or large municipal waste combustor plant, for which the initial application for a construction permit under 40 CFR part 51, subpart I, or part 52, as applicable, is submitted after December 19, 1995 shall prepare a siting analysis in accordance with paragraphs (b)(1) and (b)(2) of this section and shall comply with the requirements specified in paragraphs (b)(3) through (b)(7) of this section.

(1) The siting analysis shall be an analysis of the impact of the affected facility on ambient air quality, visibility, soils, and vegetation.

(2) The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to the public health or the environment.

(3) The owner or operator shall make the siting analysis and final draft materials separation plan required by paragraph (a)(5) of this section available to the public as specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) The owner or operator shall distribute the siting analysis and final draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.

(ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (b)(3)(ii)(A) through (b)(3)(ii)(D) of this section.

(A) The date, time, and location of the public meeting.

(B) The location of the public libraries where the siting analyses and final draft materials separation plan may be found, including normal business hours.

(C) An agenda of the issues to be discussed at the public meeting.

(D) The dates that the public comment period on the siting analyses and final draft materials separation plan begins and ends.

(4) The owner or operator shall conduct a public meeting and accept comments on the siting analysis and the final draft materials separation plan required under paragraph (a)(5) of this section. The public meeting shall be conducted in the county where the affected facility is to be located and shall be scheduled to occur 30 days or more after making the siting analysis available to the public as specified under paragraph (b)(3) of this section.

(5) The owner or operator shall prepare responses to the comments on the siting analysis and the final draft materials separation plan that are received at the public meeting.

(6) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to all public libraries) in the service area where the affected facility is to be located.

(7) As required under § 60.59b(b)(5), the owner or operator shall submit a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and the siting analysis as part of the initial notification of construction.

(c) The owner or operator of an affected facility located within a small or large municipal waste combustor plant, for which construction is commenced after September 20, 1994 shall prepare a siting analysis in accordance with 40 CFR part 51, Subpart I, or part 52, as applicable, and shall submit the siting analysis as part of the initial notification of construction. Affected facilities subject to paragraphs (a) and (b) of this section are not subject to this paragraph.

**§ 60.58b Compliance and performance testing.**

(a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section.

(1) Except as provided by § 60.56b, the standards under this subpart apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence.

(i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

(ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

(2) The opacity limits for air curtain incinerators specified in § 60.56b apply at all times as specified under § 60.56b except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.

(b) The owner or operator of a small or large municipal waste combustor plant shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(7) of this section.

(1) The span value of the oxygen (or carbon dioxide) monitor shall be 25 percent oxygen (or carbon dioxide).

(2) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor, as specified under § 60.8 of subpart A of this part.

(4) The monitor shall conform to Performance Specification 3 in appendix B of this part except for section 2.3 (relative accuracy requirement).

(5) The quality assurance procedures of appendix F of this part except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

(6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.

(i) The emission rate correction factor and the integrated bag sampling and analysis procedure of EPA Reference Method 3B shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples shall be taken for at least 30 minutes in each hour.

(iii) Each sample shall represent a 1-hour average.

(iv) A minimum of three runs shall be performed.

(7) As required by § 60.59b(f)(5), the relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to the EPA as part of the initial performance test report.

(c) The procedures and test methods specified in paragraphs (c)(1) through (c)(11) of this section shall be used to determine compliance with the emission limits for particulate matter and opacity under § 60.52b(a)(1) and (a)(2).

(1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.

(2) The EPA Reference Method 3 shall be used for gas analysis.

(3) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160±14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

(4) An owner or operator may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(5) As specified under § 60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.

(6) In accordance with paragraphs (c)(7) and (c)(11) of this section, EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under § 60.11(e) of subpart A of this part.

(7) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall conduct an initial performance test for particulate matter emissions and opacity as required under § 60.8 of subpart A of this part.

(8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous

opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(i) through (c)(8)(iv) of this section.

(i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.

(ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of this part.

(iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under § 60.8 of subpart A of this part.

(9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a large municipal waste combustor plant, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).

(10) Following the date that the initial performance test for particulate matter is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the particulate matter emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for particulate matter shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the particulate matter emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the particulate matter emission limit, performance tests shall be required annually until all annual performance tests over a 3-year period indicate compliance with the particulate matter emission limit.

(11) Following the date that the initial performance test for opacity is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a small or large municipal waste combustor plant, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (c)(6) of this section.

(d) The procedures and test methods specified in paragraphs (d)(1) and (d)(2) of this section shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under § 60.52b(a).

(1) The procedures and test methods specified in paragraphs (d)(1)(i) through (d)(1)(ix) of this section shall be used to determine compliance with the emission limits for cadmium and lead under § 60.52b(a) (3) and (4).

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3 shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.

(iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (d)(1)(iii) of this section.

(v) An owner or operator may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.

(vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).

(viii) Following the date that the initial performance test for cadmium is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for cadmium emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the cadmium emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for cadmium shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the cadmium emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the cadmium emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the cadmium emission limit.

(ix) Following the date that the initial performance test for lead is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for lead emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all three performance tests over a 3-year period indicate compliance with the lead emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for lead shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the lead emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the lead emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the lead emission limit.

(2) The procedures and test methods specified in paragraphs (d)(2)(i) through (d)(2)(xi) of this section shall be used to determine compliance with the mercury emission limit under § 60.52b(a)(5).

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3 shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.

(iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (d)(2)(iii) of this section.

(v) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1:

$$\left(\%P_{Hg}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100 \qquad (1)$$

where:

$\%P_{Hg}$ = percent reduction of the potential mercury emissions achieved.

$E_i$ = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$ = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

(vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.

(vii) An owner or operator may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(viii) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall conduct an initial performance test for mercury emissions as required under § 60.8 of subpart A of this part.

(ix) Following the date that the initial performance test for mercury is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for mercury emissions on a annual basis (no more than 12 calendar months from the previous performance test).

(x) Following the date that the initial performance test for mercury is completed or is required to be completed under § 60.8 of subpart A of this part for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all three performance tests over a 3-year period indicate compliance with the mercury emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for mercury shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the mercury emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the mercury emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the mercury emission limit.

(xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in paragraph (m) of this section for measuring and calculating carbon usage.

(e) The procedures and test methods specified in paragraphs (e)(1) through (e)(14) of this section shall be used for determining compliance with the sulfur dioxide emission limit under § 60.52b(b)(1).

(1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.

(2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.

(3) An owner or operator may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under § 60.8 of subpart A of this part. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (e)(5) of this section to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.

(5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.

(6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under § 60.8 of subpart A of this part, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

(7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(8) The 1-hour arithmetic averages required under paragraph (e)(6) of this section shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points

required under § 60.13(e)(2) of subpart A of this part.

(9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (e)(7) of this section are not met.

(10) The procedures under § 60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.

(11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under § 60.8 of subpart A of this part.

(12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of this part.

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(12)(i)(A) and (e)(12)(i)(B) of this section.

(A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B shall be used.

(ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

(13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.

(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.

(f) The procedures and test methods specified in paragraphs (f)(1) through (f)(8) of this section shall be used for determining compliance with the hydrogen chloride emission limit under § 60.52b(b)(2).

(1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be 1 hour.

(2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by paragraph (f)(1) of this section.

(3) The percent reduction in potential hydrogen chloride emissions (% $P_{HCl}$) is computed using equation 2:

$$(\%P_{HCl}) = \left(\frac{E_i - E_o}{E_i}\right) \times 100 \qquad (2)$$

where:

$\%P_{HCl}$=percent reduction of the potential hydrogen chloride emissions achieved.

$E_i$=potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$=controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(4) An owner or operator may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(5) As specified under § 60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.

(6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under § 60.8 of subpart A of this part.

(7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).

(8) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under § 60.8 of this part, the owner or operator of an affected facility located within a small municipal waste combustor plant shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the hydrogen chloride emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for hydrogen chloride shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the hydrogen chloride emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the hydrogen chloride emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the hydrogen chloride emission limit.

(g) The procedures and test methods specified in paragraphs (g)(1) through (g)(9) of this section shall be used to determine compliance with the limits for dioxin/furan emissions under § 60.52b(c).

(1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(2) The EPA Reference Method 3 shall be used for flue gas analysis.

(3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.

(i) The minimum sample time shall be 4 hours per test run.

(ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.

(4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, as required under § 60.8 of subpart A of this part.

(5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of an affected facility located within small and large municipal waste combustor plants shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, according to one of the schedules specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.

(i) For affected facilities located within small and large municipal waste combustor plants, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test.)

(ii) For affected facilities located within small municipal waste combustor plants where all performance tests for an affected facility over a 3-year period indicate compliance with the dioxin/furan emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years for that affected facility. At a minimum, a performance test for dioxin/furan emissions shall be conducted every third year (no more than 36 months following the previous performance test) for each affected facility. If a performance test conducted every third year indicates compliance with the dioxin/furan emission limit, the owner or operator may elect not to conduct a performance test on the affected facility for an additional 2 years. If any performance test indicates noncompliance with the dioxin/furan emission limit, performance tests shall be conducted annually until all annual performance tests for the affected facility over a 3-year period indicate compliance with the dioxin/furan emission limit.

(iii) For affected facilities located within small or large municipal waste combustor plants where all performance tests for all affected facilities over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).

(6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in § 60.59b(g)(4) for reporting the selection of this schedule.

(7) The owner or operator of an affected facility where activated carbon is used to comply with the dioxin/furan emission limits specified in § 60.52b(c) or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.

(8) An owner or operator may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(9) As specified under § 60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.

(h) The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for municipal waste combustors located at large municipal waste combustor plants under § 60.52b(d) (no nitrogen oxides performance tests are required for affected facilities located within small municipal waste combustor plants).

(1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.

(2) An owner or operator may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(3) The owner or operator of an affected facility located within a large municipal waste combustor plant subject to the nitrogen oxides limit under § 60.52b(d) shall conduct an initial performance test for nitrogen oxides as required under § 60.8 of subpart A of this part. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (h)(4) of this section for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

(4) The owner or operator of an affected facility located within a large municipal waste combustor plant subject to the nitrogen oxides emission limit under § 60.52b(d) shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.

(5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under § 60.8 of subpart A of this part, compliance with the emission limit for nitrogen oxides required under § 60.52b(d) shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.

(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide)

continuous emission monitoring system data.

(7) The 1-hour arithmetic averages required by paragraph (h)(5) of this section shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (h)(6) of this section are not met.

(9) The procedures under § 60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under § 60.8 of subpart A of this part.

(10) The owner or operator shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of this part and shall follow the procedures and methods specified in paragraphs (h)(10)(i) and (h)(10)(ii) of this section.

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(i)(A) and (h)(10)(i)(B) of this section.

(A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B shall be used.

(ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

(11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.

(12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.

(i) The procedures specified in paragraphs (i)(1) through (i)(12) of this section shall be used for determining compliance with the operating requirements under § 60.53b.

(1) Compliance with the carbon monoxide emission limits in § 60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.

(2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in § 60.53b(a) shall be determined using a 24-hour daily arithmetic average.

(3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i)(3)(i) through (i)(3)(iii) of this section.

(i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of this part.

(ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of this part, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section.

(A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B shall be used.

(iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

(4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (i)(1) and (i)(2) of this section shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.

(5) An owner or operator may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

(6) The procedures specified in paragraphs (i)(6)(i) through (i)(6)(v) of this section shall be used to determine compliance with load level requirements under § 60.53b(b).

(i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.

(ii) The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991)" section 4 (incorporated by reference, see § 60.17 of subpart A of this part) shall be used for calculating the steam (or feedwater) flow required under paragraph (i)(6)(i) of this section. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference—see § 60.17 of subpart A of this part) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (i)(6)(iii) of this section.

(iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan

performance test, and at least once per year.

(a) [Reserved].

(7) To determine compliance with the maximum particulate matter control device temperature requirements under § 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.

(8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in § 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.

(9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in § 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.

(10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(10)(i) and (i)(10)(ii) of this section for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of this section even if the minimum data requirements of paragraph (i)(10) of this section are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

(12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of this part.

(j) The procedures specified in paragraphs (j)(1) and (j)(2) of this section shall be used for calculating municipal waste combustor unit capacity as defined under § 60.51b.

(1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity, in megagrams per day of municipal solid waste combusted, shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this section as applicable.

(i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram.

(ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

(2) For batch feed municipal waste combustor units, municipal waste combustor unit capacity, in megagrams per day of municipal solid waste combusted, shall be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 10,500 kilojoules per kilogram for all municipal solid waste shall be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.

(k) The procedures specified in paragraphs (k)(1) through (k)(3) of this section shall be used for determining compliance with the fugitive ash emission limit under § 60.55b.

(1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under § 60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

(2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with § 60.55b.

(3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under § 60.8 of subpart A of this part.

(l) The procedures specified in paragraphs (l)(1) through (l)(3) of this section shall be used to determine compliance with the opacity limit for air curtain incinerators under § 60.56b.

(1) The EPA Reference Method 9 shall be used for determining compliance with the opacity limit.

(2) The owner or operator of the air curtain incinerator shall conduct an initial performance test for opacity as required under § 60.8 of subpart A of this part.

(3) Following the date that the initial performance test is completed or is required to be completed under § 60.8 of subpart A of this part, the owner or operator of the air curtain incinerator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).

(m) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under § 60.52b(a)(5), or the dioxin/furan emission limits under § 60.52(b)(c), or the dioxin/furan emission level specified in § 60.58b(g)(5)(iii) shall follow the procedures specified in paragraphs (m)(1) through (m)(3) of this section.

(1) During the performance tests for dioxins/furans and mercury, as

applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (m)(1)(i) and (m)(1)(ii) of this section.

(i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.

(ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.

(2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section.

(3) The owner or operator shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (m)(3)(i) and (m)(3)(ii) of this section.

(i) The weight of carbon delivered to the plant.

(ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (m)(1) of this section, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

**§ 60.59b Reporting and recordkeeping requirements.**

(a) The owner or operator of an affected facility located at a municipal waste combustor plant with a capacity to combust greater than 35 megagrams per day shall submit, on or before the date the application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable, the items specified in paragraphs (a)(1) through (a)(4) of this section.

(1) The preliminary and final draft materials separation plans required by § 60.57b(a)(1) and (a)(5).

(2) A copy of the notification of the public meeting required by § 60.57b(a)(1)(ii).

(3) A transcript of the public meeting required by § 60.57b(a)(2).

(4) A copy of the document summarizing responses to public comments required by § 60.57b(a)(3).

(b) The owner or operator of an affected facility located at a municipal waste combustor plant with a capacity to combust greater than 35 megagrams per day shall submit a notification of construction, which includes the information specified in paragraphs (b)(1) through (b)(5) of this section.

(1) Intent to construct.

(2) Planned initial startup date.

(3) The types of fuels that the owner or operator plans to combust in the affected facility.

(4) The municipal waste combustor unit capacity, municipal waste combustor plant capacity, and supporting capacity calculations prepared in accordance with § 60.58b(j).

(5) Documents associated with the siting requirements under § 60.57b (a) and (b), as specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section.

(i) The siting analysis required by § 60.57b (b)(1) and (b)(2).

(ii) The final materials separation plan for the affected facility required by § 60.57b(a)(10).

(iii) A copy of the notification of the public meeting required by § 60.57b(b)(3)(ii).

(iv) A transcript of the public meeting required by § 60.57b(b)(4).

(v) A copy of the document summarizing responses to public comments required by § 60.57b (a)(9) and (b)(5).

(c) The owner or operator of an air curtain incinerator subject to the opacity limit under § 60.56b shall provide a notification of construction that includes the information specified in paragraphs (b)(1) through (b)(4) of this section.

(d) The owner or operator of an affected facility located within a small or large municipal waste combustor plant and subject to the standards under §§ 60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (d)(1) through (d)(15) of this section, as applicable, for each affected facility for a period of at least 5 years.

(1) The calendar date of each record.

(2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (d)(2)(i) and (d)(2)(ii) of this section.

(i) The measurements specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(D) of this section shall be recorded and be available for submittal to the Administrator or review onsite by an inspector.

(A) All 6-minute average opacity levels as specified under § 60.58b(c).

(B) All 1-hour average sulfur dioxide emission concentrations as specified under § 60.58b(e).

(C) All 1-hour average nitrogen oxides emission concentrations as specified under § 60.58b(h) (large municipal waste combustor plants only).

(D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under § 60.58b(i).

(ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an inspector.

(A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under § 60.58b(e).

(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under § 60.58b(h) (large municipal waste combustor plants only).

(C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under § 60.58b(i).

(D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under § 60.58b(i).

(3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section, or the opacity levels recorded under paragraph (d)(2)(i)(A) of this section are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.

(4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (d)(4)(i) through (d)(4)(v) of this section.

(i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under § 60.58b(m)(1)(i) of this section during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.

(ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under

§ 60.58b(m)(1)(ii) of this section during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.

(iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under § 60.58b(m)(3)(ii) of this section, with supporting calculations.

(iv) The total carbon usage for each calendar quarter estimated as specified by paragraph 60.58b(m)(3) of this section, with supporting calculations.

(v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

(5) [Reserved]

(6) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (d)(6)(i) through (d)(6)(v) of this section have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.

(i) Sulfur dioxide emissions data;

(ii) Nitrogen oxides emissions data (large municipal waste combustor plants only);

(iii) Carbon monoxide emissions data;

(iv) Municipal waste combustor unit load data; and

(v) Particulate matter control device temperature data.

(7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

(8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides (large municipal waste combustors only), and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure 1.

(9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (d)(9)(i) and (d)(9)(ii) of this section shall be recorded along with supporting calculations.

(i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.

(ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (d)(9)(i) of this section, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).

(10) [Reserved]

(11) For each municipal waste combustor subject to the siting provisions under § 60.57b, the siting analysis, the final materials separation plan, a record of the location and date of the public meetings, and the documentation of the responses to public comments received at the public meetings.

(12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iii) of this section.

(i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by § 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.

(ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by § 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.

(iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by § 60.54b(d) including documentation of training completion.

(13) Records showing the names of persons who have completed a review of the operating manual as required by § 60.54b(f) including the date of the initial review and subsequent annual reviews.

(14) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the average carbon mass feed rates recorded under (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.

(15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (d)(4)(v) of this section are below the level(s) estimated during the performance tests as specified in § 60.58b(m)(1)(i) and § 60.58b(m)(1)(ii) of this section, with reasons for such occurrences and a description of corrective actions taken.

(e) The owner or operator of an air curtain incinerator subject to the opacity limit under § 60.56b shall maintain records of results of the initial opacity performance test and subsequent performance tests required by § 60.58b(l) for a period of at least 5 years.

(f) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit the information specified in paragraphs (f)(1) through (f)(6) of this section in the initial performance test report.

(1) The initial performance test data as recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

(2) The test report documenting the initial performance test recorded under paragraph (d)(9) of this section for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.

(3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.

(4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under paragraph (d)(9) of this section.

(5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(i) of this section.

(6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or

operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(ii) of this section.

(g) Following the first year of municipal combustor operation, the owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit an annual report including the information specified in paragraphs (g)(1) through (g)(4) of this section, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

(1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (g)(1)(i) through (g)(1)(v) of this section.

(i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under paragraph (d)(9) of this section.

(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section.

(iii) List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of this section.

(iv) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.

(v) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.

(2) The summary of data reported under paragraph (g)(1) of this section shall also provide the types of data specified in paragraphs (g)(1)(i) through (g)(1)(vi) of this section for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(3) The summary of data including the information specified in paragraphs (g)(1) and (g)(2) of this section shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.

(4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in § 60.58b(g)(5)(iii) of this section during the following calendar year.

(h) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit a semiannual report that includes the information specified in paragraphs (h)(1) through (h)(5) of this section for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (h)(6) of this section.

(1) The semiannual report shall include information recorded under paragraph (d)(3) of this section for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

(2) For each date recorded as required by paragraph (d)(3) of this section and reported as required by paragraph (h)(1) of this section, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A) of this section, as applicable.

(3) If the test reports recorded under paragraph (d)(9) of this section document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.

(4) The semiannual report shall include the information recorded under paragraph (d)(15) of this section for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.

(5) For each operating date reported as required by paragraph (h)(4) of this section, the semiannual report shall include the carbon feed rate data recorded under paragraph (d)(4)(iii) of this section.

(6) Semiannual reports required by paragraph (h) of this section shall be submitted according to the schedule specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section.

(i) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.

(ii) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.

(i) The owner or operator of an air curtain incinerator subject to the opacity limit under § 60.56b shall submit the results of the initial opacity performance test and all subsequent annual performance tests recorded under paragraph (e) of this section. Annual performance tests shall be submitted by February 1 of the year following the year of the performance test.

(j) All reports specified under paragraphs (a), (b), (c), (f), (g), (h), and (i) of this section shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.

(k) All records specified under paragraphs (d) and (e) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

(l) If an owner or operator would prefer to select a different annual or semiannual date for submitting the periodic reports required by paragraphs (g), (h) and (i) of this section, then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in § 60.19(c) of subpart A of this part.

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